

# 2020 Census Program Management Review

Decennial Census Programs

U.S. Census Bureau

July 22, 2016

# Welcome

**Lisa Blumerman**

Associate Director, Decennial Census Programs

# Welcome

## Housekeeping Items

- Meeting is being broadcast via a publicly available web broadcast. Consider all microphones live at all times when having sidebar conversations
- For questions, please remember to speak directly into the microphones for the benefit of other participants, including those watching via any external broadcast
- There are legal requirements we must follow when talking with contractors or potential contractors
  - Information from Michael Palensky, Chief Acquisition Division
- Location of restrooms
- Emergency exits

# Welcome

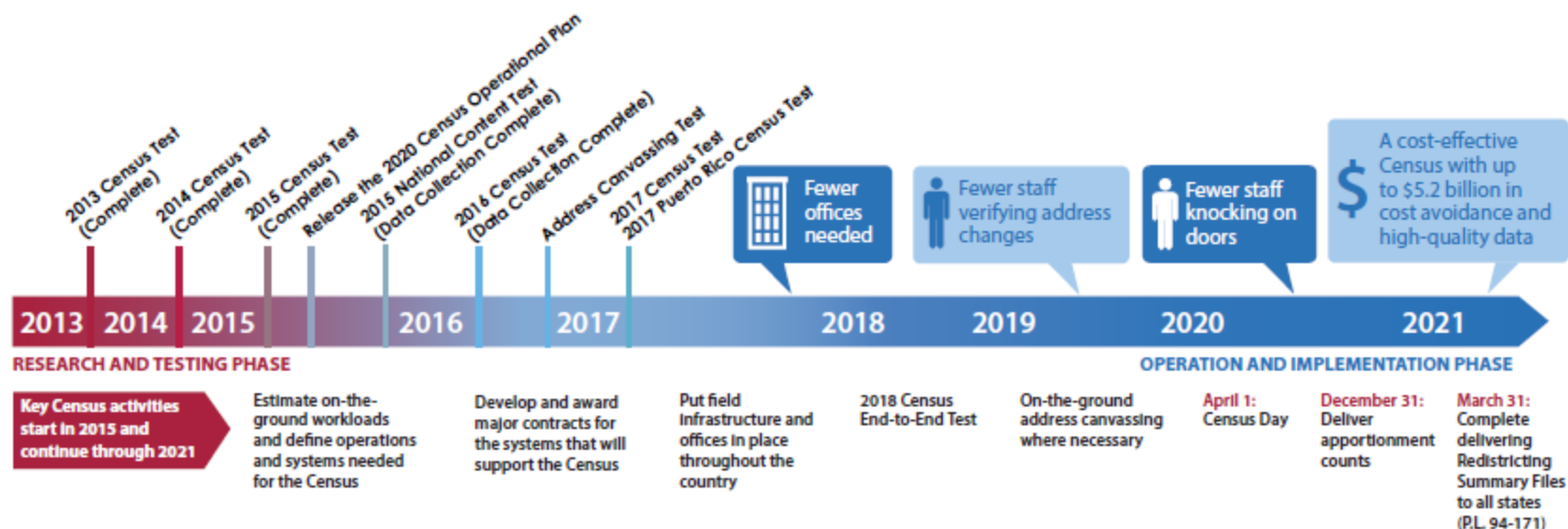
## Today's Agenda

- Welcome and High-Level Program Updates
- Program Management Updates
- Update on the 2016 Census Test Preliminary Findings
- Operational Updates
  - Residence Criteria and Residence Situations
  - Address Canvassing: Operational Update and Test
  - Update on the 2017 Census Tests
- 2020 Census Systems Integration
  - Commercial-Off-The-Shelf (COTS) Capability Assessment and Analysis
  - Update on 2020 Census Systems Architecture
- Wrap-up

# Welcome

## Where Are We Today?

### 2020 Census Lifecycle

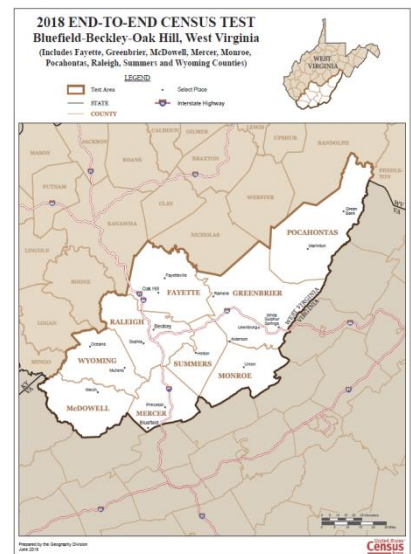
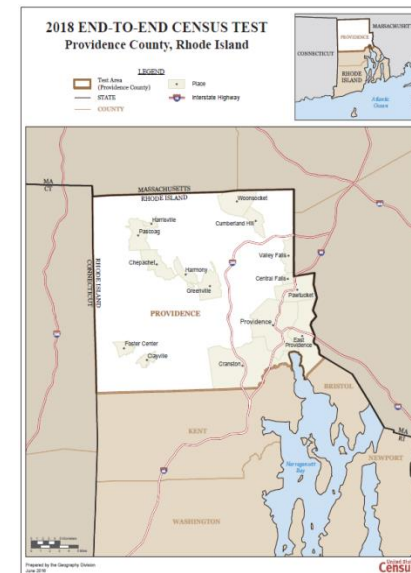


# 2018 End-to-End Census Test Overview

- April 1, 2018 Census Day
- Site test in Pierce County, Washington; Providence County, Rhode Island; and, Bluefield-Beckley-Oak Hill, West Virginia

## Purpose

- Test and validate 2020 Census operations, procedures, systems, and field infrastructure together to ensure proper integration and conformance with functional and non-functional requirements
- Produce a prototype of geographic and data products



# Program Management Updates

**Shirin Ahmed**, Assistant Director, Decennial Census Programs  
**Deb Stempowski**, Decennial Census Management Division

# Program Management Updates

## Budget

- The FY 2016 appropriation for the Census Bureau's Periodic Censuses and Programs appropriation enabled the Census Bureau to allocate \$625.3 million to the 2020 Census
- For FY 2017, the President's request is \$778.3 million



# Program Management Updates

## Human Capital Management

- Succession planning
  - Strategic Workforce Team
    - Reviewed 2014 Competency Assessment across all directorate divisions and offices
    - Identified gaps in workforce technical competencies and succession risks
  - A 2020 Census Program Workforce Assessment Report by October 2016 will provide a comprehensive Succession Planning strategy
- Onboarding
  - Assessed how to improve processes for bringing on new staff
  - Developed onboarding toolkit for hiring managers
  - Formed an Onboarding Initiative Team
  - Next step: Establish new hire cohorts

# Program Management Updates

## Key Contract Updates

### Census Questionnaire Assistance (CQA)

- Assist respondents by providing information about specific items on the census form and provide an option for respondents to complete a census interview over the phone.
- **Awarded: July 11, 2016**
- **Awardee: General Dynamics Information Technology**

### Integrated Communications Contract (ICC)

- Acquire services to plan, design, produce, implement, and monitor an integrated communications program for the 2020 Census
- **Award: August 2016**

### Technical Integration (TI)

- Support all design and architecture engineering and integration activities including infrastructure, disaster recovery, and data center capabilities
- **Award: August 2016**

### Schedule A Human Resources Payroll System (C-SHaRPS)

- Recruiting, hiring, onboarding/separation and payroll capabilities for the Schedule A field staff hired to support the 2020 Census
- **Award: September/October 2016**

### Decennial Device as a Service (dDaaS)

- Will be a single contract for all mobile devices and services for the 2018 End-to-End Census Test through the completion of 2020 Census Field Operations
- **Award for 2020 Census: January 2017**

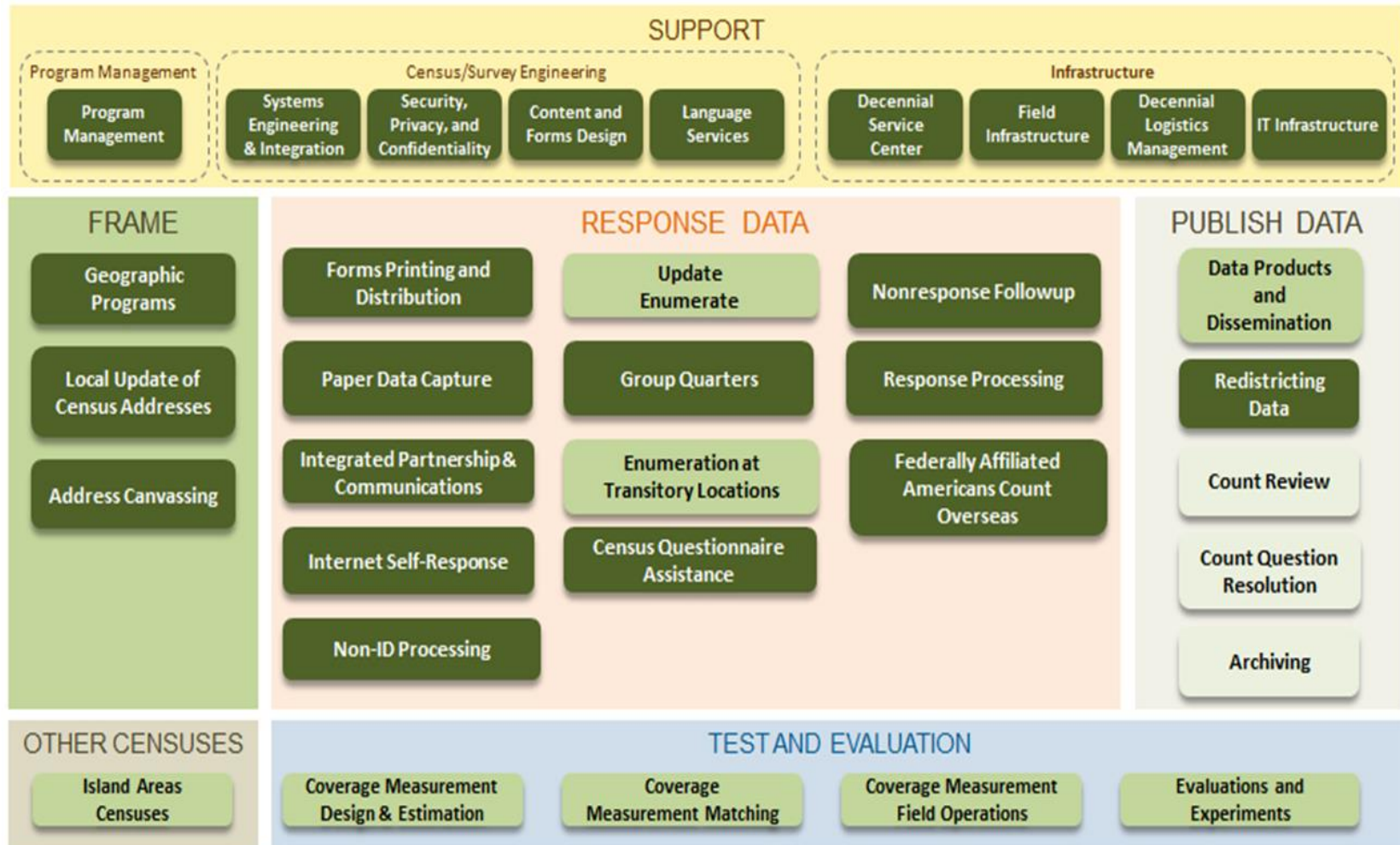
# Program Management Updates

## Status of 2020 Census Operations

Detailed  
planning is  
underway

Detailed  
planning has  
recently begun

Detailed  
planning has  
not started



# 2020 Census Schedule Development and Risk Management

**Deb Stempowski, Decennial Census Management Division**

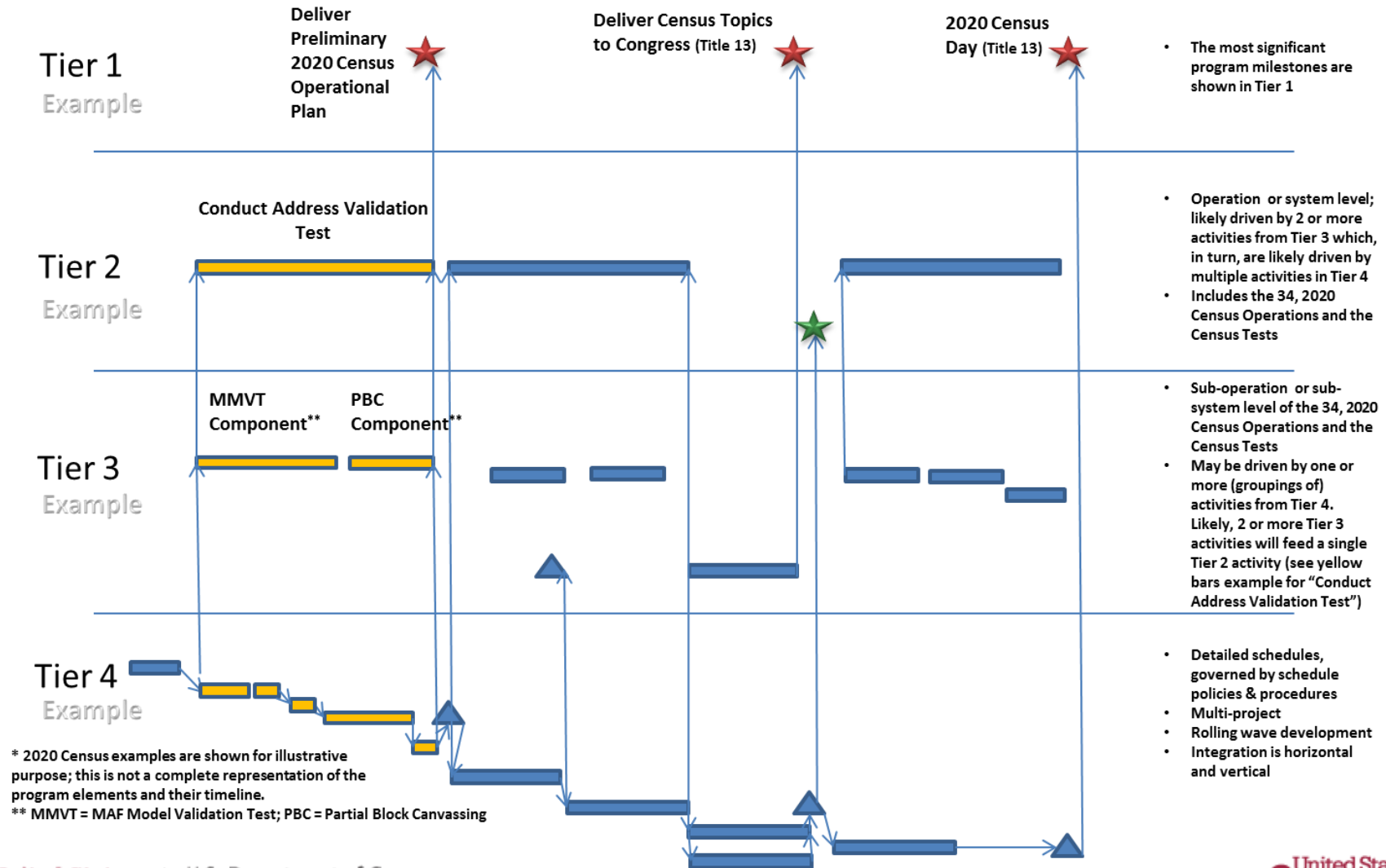
# Program Management Updates

## Schedule: Milestones

Milestone	Date	
Begin 2020 Census Program	November 18, 2011	✓
Deliver 2020 Census Operational Plan	September 30, 2015	✓
Federal Register Notice of Proposed Residence Criteria and Residence Situations for the 2020 Census	June 30, 2016	✓
Conduct the Second Round of Tribal Consultations	September 2016 – November 2016	
Begin Local Update of Census Addresses (LUCA) Program (including Appeals Process)	January 2017	
Deliver 2020 Census Topics to Congress	April 1, 2017	
Conduct the Block Boundary Suggestion Program	December 2015 – May 2017	
Deliver 2020 Census Questions to Congress	April 1, 2018	
2020 Census Day	April 1, 2020	
Deliver Apportionment Counts to the President	December 31, 2020	
Complete Delivery of Redistricting Counts to the States	March 31, 2021	
Complete 2020 Census Program	September 29, 2023	

# Program Management Updates

## Schedule: Reengineered Schedule Tier Concept (Notional)





# Program Management Updates

## Schedule

AdCan Test - Project Management	
AdCan Test - Objectives & Requirements	
16ACT-10055	Develop BPMs and Capability Requirements for Solutions Architect for A
16ACT-10060	Prepare Goals, Objectives, & Success Criteria (GOSC) initial draft for A
16ACT-10100	Deliver validated BPMs and Capability Requirements to Solutions Archi
16ACT-10150	Solution Architects (SE&I, CEDCaP & ITD) begin assigning Capability F
16ACT-10070	Deliver initial draft of GOSC to Site Selection - AdCan Test
16ACT-10050	Finalize (AD20C Approved) Goals, Objectives, & Success Criteria (GOS
AdCan Test - Planning	
16ACT-20000	Identify Scope for LiMA 2.0 for Production In-Field - AdCan Test
16ACT-11740	Deliver Initial Staffing Estimates for In-Field Staff (from FLD) for AdCan T
16ACT-10010	Draft AdCan Test Plan - Address Canvassing Test
16ACT-11750	Deliver Final Staffing Estimates for In-Field Staff (from FLD) for AdCan T
16ACT-11340	Finalize (AD20C Approved) AdCan Test Plan - AdCan Test
AdCan Test - OMB Package	
16ACT-10200	Subject Matter Experts Begin Writing OMB Presubmission - AdCan Tes
16ACT-10210	OMB Presubmission Draft Complete - AdCan Test
16ACT-10220	BOC Review of OMB Presubmission - AdCan Test
16ACT-10230	OMB Presubmission sent to OCIO (DOC) - AdCan Test
16ACT-10240	DOC reviews and posts Federal Register Notice of OMB Presubmission
16ACT-10260	Subject Matter Experts Prepare Full OMB Package - AdCan Test
16ACT-10250	Federal Register Notice comment period (60 days) - AdCan Test
16ACT-10270	BOC Review of Full OMB Package - AdCan Test
16ACT-10280	OMB Full Package Updated with response to Public Comments - AdCa
16ACT-10290	OMB Package and 30 Day Notice Prepared and sent to Policy Coordin
16ACT-10340	OMB Full Package loaded into ROCIS - AdCan Test
16ACT-10300	DOC reviews and posts 30 Day Notice and OMB Full Package - AdCan
16ACT-10310	30 Day OMB Public Comment Period - AdCan Test
16ACT-10320	OMB Review of Full Package - AdCan Test
16ACT-10330	OMB Clearance - Approval Received - AdCan Test
AdCan Test - Site Selection	
16ACT-03000	Receive Test Goals, Objectives, Success Criteria (GOSC), Workloads,
16ACT-03010	Collect Reference Data for Site Selection - AdCan Test
16ACT-03020	Conduct Analysis to Determine Eligible Sites - AdCan Test
16ACT-03030	Refine Site Selection Criteria - AdCan Test
16ACT-03040	Provide Site Selection Requirements and Initial List of Eligible Sites to I
16ACT-03050	Get PMGB Approval on Site Selection Criteria and Feedback on Site Se
16ACT-03060	Refine Site Selection/Perform Additional Research - AdCan Test
16ACT-03070	Provide Site Recommendations to Management - AdCan Test
16ACT-03210	Obtain Management Approval (ESC) for Sites - AdCan Test
16ACT-03220	Develop Site Selection Maps and Summary Materials - AdCan Test
AdCan Test - Communicate Site Selection	
16ACT-03100	Present Site Location to PIO, AdCom, CAO - AdCan Test
16ACT-03110	Prepare "Talking Points" on Scope, Criteria, Maps, and Milestone Sche

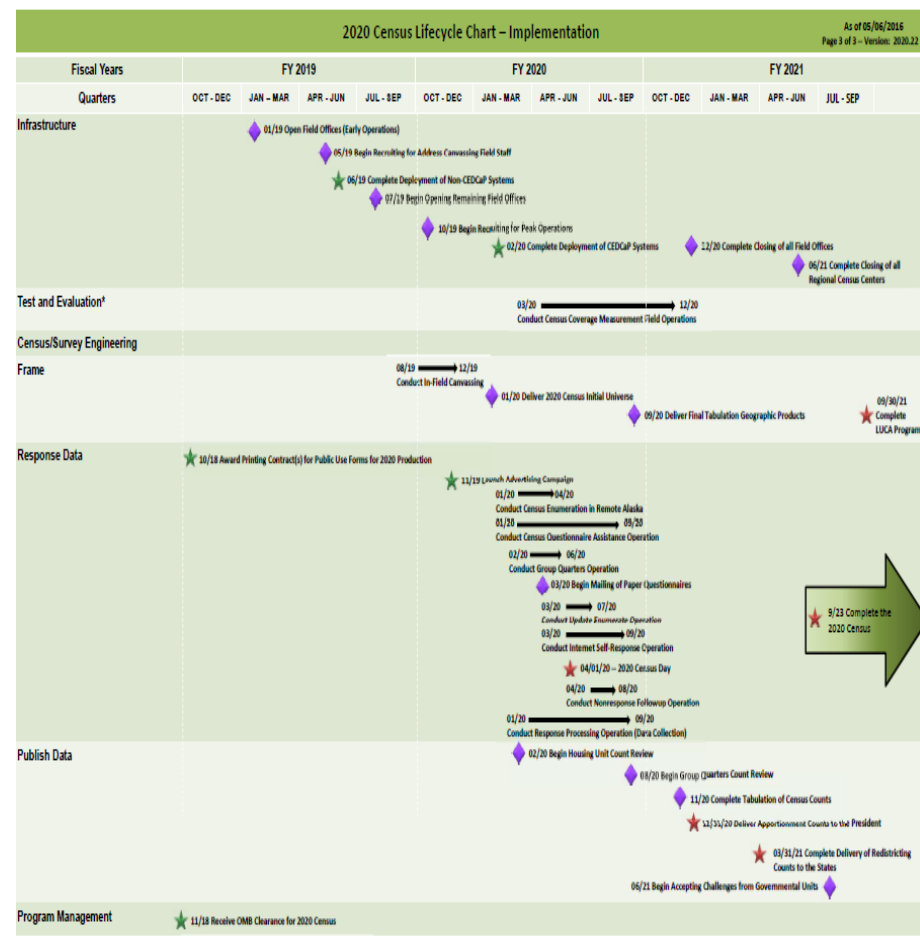
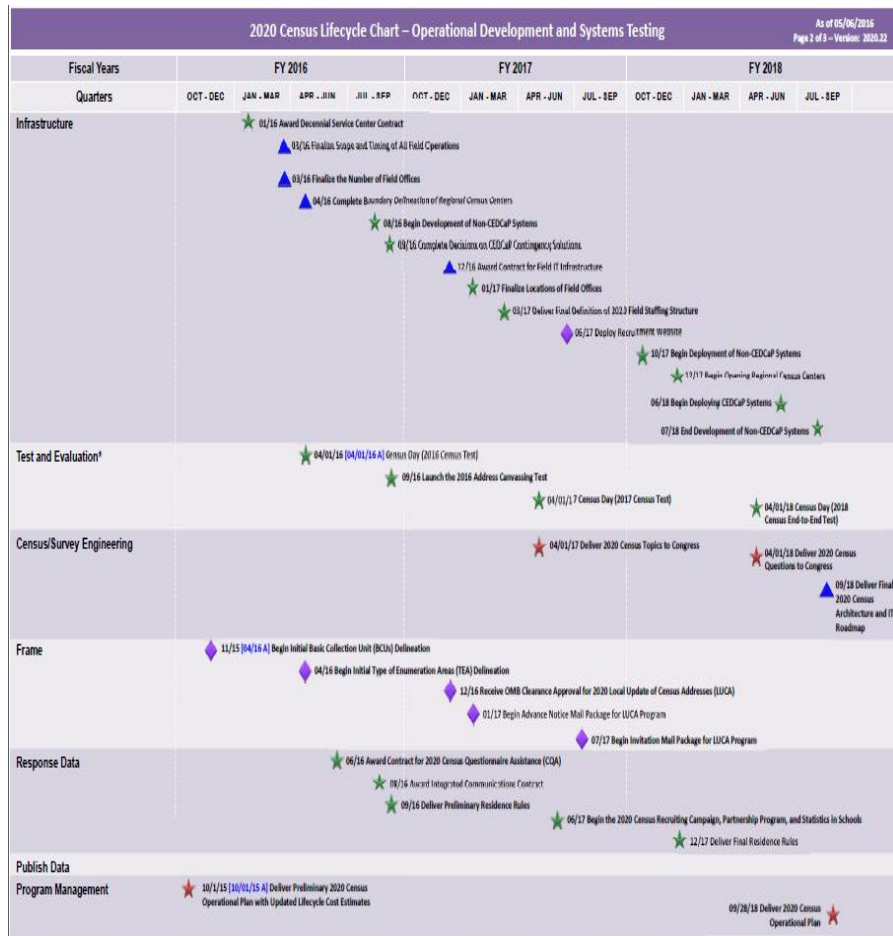
Address Canvassing Test Schedule  
Baselined: January 29, 2016

2017 Census Test Planning and Management	
17CST-00010	Start 2017 Census Test
17CST-00020	Finish 2017 Census Test
2017 Census Test Key Milestones	
17CST-11150	Open Regional Census Center (RCC) for 2017 Census Test
17CST-10000	Census Day - 2017 Census Test
2017 Census Test Objectives & Requirements	
2017 Census Test Goals & Objectives	
17CST-10350	Develop Initial Goals, Objectives, & Success Criteria (GOSC) for 2017 C
17CST-10152	Finalize Goals, Objectives, & Success Criteria (GOSC) for 2017 Census
2017 Census Test Requirements & BPMs	
17CST-10310	Facilitate Requirements for PBR - 2017 CT
17CST-10300	Facilitate BPM and Capability Requirements Sessions(DART) - 2017 CT
17CST-10340	Stakeholder Review of BPM and Capability Requirements for SRR - 201
17CST-10330	Conduct Project Baseline Review (PBR) - 2017 CT
17CST-10320	Conduct Critical Business Proposal Review (CBR) - 2017 CT
2017 Census Test Planning	
17CST-10080	Draft 2017 Census Test Plan - 2017 Census Test
17CST-10180	Finalize 2017 Census Test Plan - 2017 Census Test
2017 Census Test Site Selection	
17CST-11050	Receive Test Goals, Objectives, Success Criteria (GOSC), Workloads,
17CST-11060	Collect Reference Data for Site Selection - 2017 Census Test
17CST-11070	Conduct Analysis to Determine Eligible Sites - 2017 Census Test
17CST-11080	Refine Site Selection Criteria - 2017 Census Test
17CST-11090	Provide Site Selection Requirements and Initial List of Eligible Sites to I
17CST-11100	Get PMGB Approval on Site Selection Criteria and Feedback on Site Se
17CST-11110	Refine Site Selection/Perform Additional Research - 2017 Census Test
17CST-11120	Provide Site Recommendations to Management - 2017 Census Test
17CST-11130	Obtain Management Approval (ESC) for Sites - 2017 Census Test
17CST-10230	Announce 2017 Census Test Site - 2017 Census Test
17CST-11140	Develop Site Selection Maps and Summary Materials - 2017 Census Te
2017 Census Test OMB Package	
17CST-10810	Subject Matter Experts Begin Writing OMB Presubmission - 2017 CT
17CST-10820	OMB Presubmission Draft Complete - 2017 CT
17CST-10830	BOC Review of OMB Presubmission - 2017 CT
17CST-10840	OMB Presubmission sent to OCIO (DOC) - 2017 CT
17CST-10850	DOC reviews and posts Federal Register Notice of OMB Presubmission
17CST-10860	Subject Matter Experts Prepare Full OMB Package - 2017 CT
17CST-10900	Pre-Submission to OMB - 2017 CT
17CST-10890	Federal Register Notice Public Comment Period (60 days) - 2017 CT
17CST-10770	BOC Review of Full OMB Package - 2017 CT

2017 Census Test Schedule  
Baselined: April 29, 2016

# Program Management Updates

## Schedule: Swim Lane 2016 – 2021

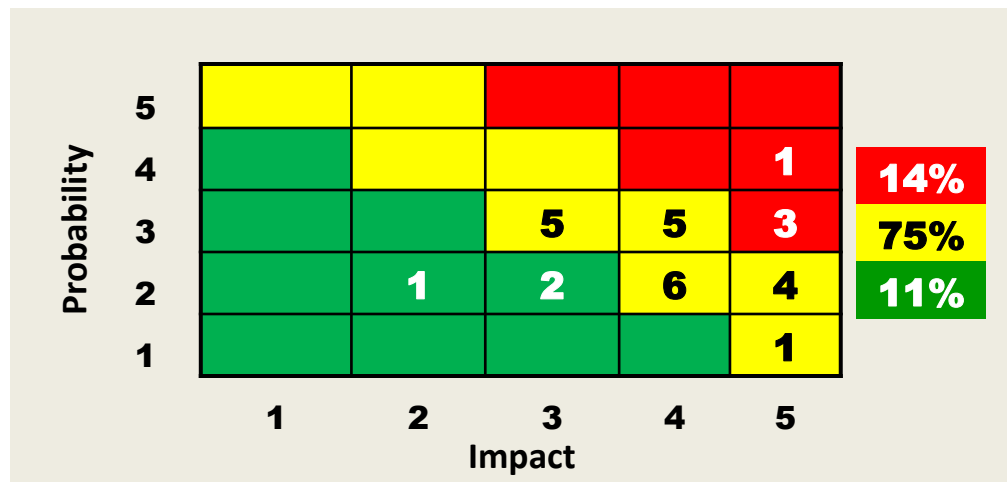




# The 2020 Census

## Risks

*The selected risks that follow represent the major concerns that could affect the design or the successful implementation of the 2020 Census. The full risk register is available upon request.*



- Funding Requests Not Realized ██████████
- Administrative Records and Third-Party Data - External Factors ██████████
- Public Perception of Ability to Safeguard Response Data ██████████
- Cyber Security Incidents ██████████
- Enterprise IT Solutions ██████████
- Late Operational Design Changes ██████████
- Technological Innovations Surfacing After Design is Finalized ██████████

# 2016 Census Test Preliminary Findings

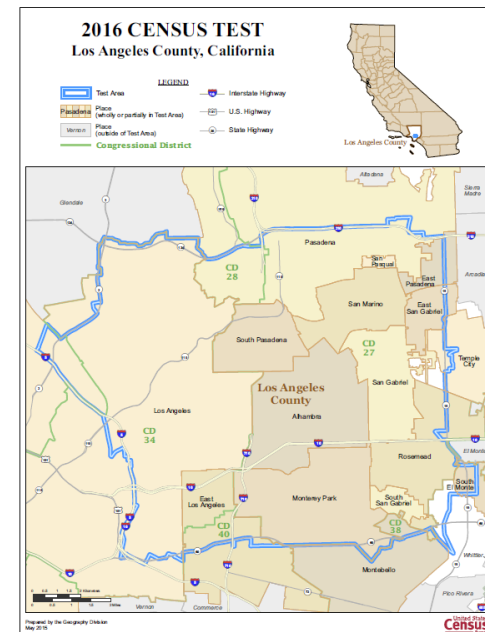
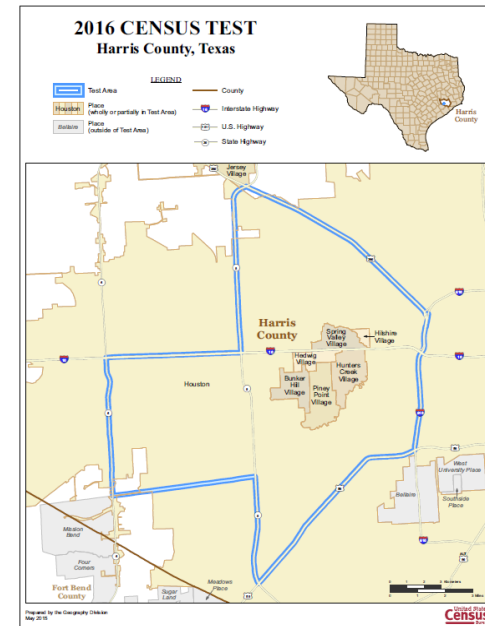
**Deb Stempowski**, Decennial Census Management Division

**Maryann Chapin**, Decennial Census Management Division

**Albert E. Fontenot, Jr.**, Field Division

# 2016 Census Test Overview

- April 1, 2016 Census Day
- A site test in parts of Harris County, TX and Los Angeles County, CA
  - Language diversity
  - Demographic diversity
  - High vacancy rates
  - Varying levels of Internet usage
  - Multiple locations across different time zones
  - Approximately 225,000 housing units in each test area



# 2016 Census Test

## Purpose

Refine technologies and methods associated with Self-Response and Nonresponse Followup operations

### Self-Response:

- Provide non-English support for respondents with limited English proficiency – both in terms of our contact strategies and response options
- Form partnerships and conduct outreach efforts to reach historically hard to count populations
- Refine Real Time Non-ID Processing methods
- Test languages utilizing non-Roman characters (Chinese and Korean) in all response modes

### Nonresponse Followup:

- Finalize the strategy for using administrative records in support of Nonresponse Followup
- Test multiple ratios of enumerators to supervisors
- Implement enhanced procedures for conducting interviews at multi-unit structures and via proxy
- Continue to refine our use of technology and automation to reengineer field operations

# 2016 Census Test Operations

Focus of the  
Test

Required to  
Support the  
Test

NOT  
Included in  
the Test

## SUPPORT

### Program Management

Program  
Management

### Census/Survey Engineering

Systems  
Engineering  
& Integration

Security,  
Privacy, and  
Confidentiality

Content and  
Forms Design

Language  
Services

### Infrastructure

Decennial  
Service  
Center

Field  
Infrastructure

Decennial  
Logistics  
Management

IT Infrastructure

## FRAME

Geographic  
Programs

Local Update of  
Census Addresses

Address  
Canvassing

## RESPONSE DATA

Forms Printing and  
Distribution

Update  
Enumerate

Nonresponse Followup

Paper Data Capture

Group Quarters

Response Processing

Integrated Partnership  
& Communications

Enumeration at  
Transitory Locations

Federally Affiliated  
Americans Count  
Overseas

Internet Self-Response

Census Questionnaire  
Assistance

Non-ID Processing

## PUBLISH DATA

Data Products  
and  
Dissemination

Redistricting  
Data

Count Review

Count Question  
Resolution

Archiving

## OTHER CENSUSES

Island Areas  
Censuses

## TEST AND EVALUATION

Coverage Measurement  
Design & Estimation

Coverage  
Measurement  
Matching

Coverage Measurement  
Field Operations

Evaluations and  
Experiments

# 2016 Census Test

## Key Activities

Activity	Date	
Site Selection Announcement	June 26, 2015	✓
Publish Presubmission Federal Register Notice	August 4, 2015	✓
Deliver OMB (Paperwork Reduction Act) Clearance Package	October 28, 2015	✓
Receive OMB (Paperwork Reduction Act) Approval	January 12, 2016	✓
Open Regional Census Centers	September 24, 2015	✓
Conduct Recruiting	October 2015 – April 2016	✓
Open Area Operations Support Centers	January 2016	✓
Conduct 2016 Census Test	March – June 2016	✓
Begin Self-Response Data Collection	March 2016	✓
Census Day	April 1, 2016	✓
Conduct Field Training	April – May 2016	✓
Conduct Coverage Reinterview, Nonresponse Followup, and Nonresponse Followup Reinterview	May – June 2016	✓
Complete Research and Analysis Reports	Quarter 2 of Fiscal Year 2017	

# 2016 Census Test

## Self-Response: Overview

- Five Self-Response Contact Strategy Panels
- Multiple mailings to encourage self-response
- Partnerships to reach demographically diverse populations
- Provide language support to Limited English Proficient populations
  - Non-English questionnaires (Internet, paper, Census Questionnaire Assistance, Nonresponse Followup)
  - Multilingual brochures
  - Envelopes with messages written in non-English languages
- New Internet software application PRIMUS
- Refinement of Real-Time Non-ID Processing methods

# 2016 Census Test

## Self-Response: Contact Strategies

Five Self-Response Contact Strategy Panels with Multiple Mailings

Panel	Contact 1 March 21, 2016	Contact 2 March 24, 2016	Contact 3 April 4, 2016	Contact 4 April 11, 2016	Contact 5 Nonresponse Followup
1 Internet Push	Letter	Postcard	Postcard	Mail Questionnaire + Letter	Postcard*
2 Internet Push with reminder letter	Letter	Letter	Postcard	Mail Questionnaire + Letter	Postcard*
3 Internet Push with language brochure	Brochure + URL	Postcard	Postcard	Mail Questionnaire + Brochure/URL	Postcard*
4 Internet Push with language insert	Letter + Insert	Postcard	Postcard	Mail Questionnaire + Letter/Insert	Postcard*
5 Internet Choice	Mail Questionnaire + Letter	Postcard	Postcard	Mail Questionnaire + Letter	Postcard*

\*Weekly NRFU mailings will occur to any addresses removed from the NRFU workload as a result of our administrative records modeling process.



# 2016 Census Test

## Preliminary Self-Response Rates as of July 12, 2016

		Los Angeles County Site				Harris County Site			
	Panel	Internet	Telephone	Mail	Total*	Internet	Telephone	Mail	Total*
1	Internet Push	33.4%	3.0%	13.5%	49.9%	29.6%	2.2%	8.9%	40.7%
2	Internet Push with Reminder Letter	34.5%	2.7%	13.4%	50.6%	30.2%	2.4%	8.9%	41.5%
3	Internet Push with Language Brochure	34.3%	3.2%	15.7%	53.2%	28.0%	2.0%	9.6%	39.6%
4	Internet Push with Language FAQ Insert	36.6%	3.2%	14.3%	54.0%	29.9%	2.1%	8.6%	40.6%
5	Internet Choice	18.4%	1.2%	36.7%	56.2%	13.2%	0.8%	18.5%	32.5%
<b>Total</b>		<b>31.4%</b>	<b>2.7%</b>	<b>19.3%</b>	<b>53.4%</b>	<b>27.4%</b>	<b>2.0%</b>	<b>10.2%</b>	<b>39.6%</b>

\*Individual components may not add to total due to rounding.

# 2016 Census Test

## Partnership and Outreach as of June 9, 2016

- Partners for the 2016 Census Test Sites
  - Harris County, Texas - 258 Partners
  - Los Angeles County, Texas - 262 Partners
- Partnership Commitment Activities for the 2016 Census Test Sites
  - Harris County, Texas - 364 Activities
  - Los Angeles County, California - 596 Activities
- Partnership specialists have also provided recruiting support for the Field staff



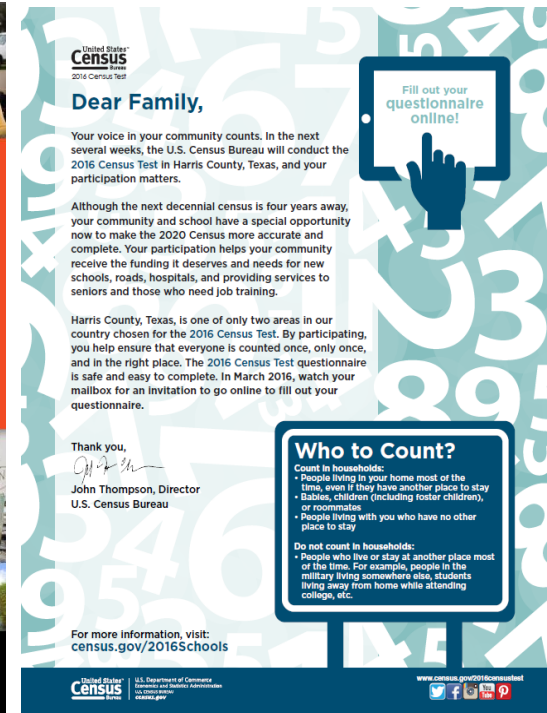
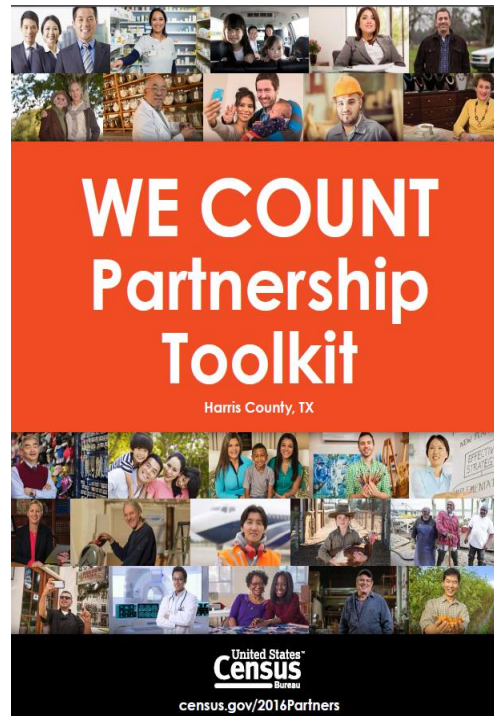
# 2016 Census Test Partnership and Outreach

## Partnerships Toolkit

Partnership Toolkits were developed for both Harris County, TX and Los Angeles County, CA

### Contents included:

- Fast facts about the 2016 Census Test
- Email Samples
- Article Samples
- Event Hosting Tips
- Social Media Content
- A list of places with public computers
- Internet URLs



# 2016 Census Test

## Self-Response: Language Materials

Language Materials Provided for the 2016 Census Test

Operation/Materials	Non-English Languages
Internet Questionnaire	Spanish, Chinese (Simplified), Korean
Paper Questionnaire (and mailing materials)	Spanish, Chinese (Simplified), Korean
Nonresponse Followup Questionnaire (and field materials)	Spanish, Chinese (Simplified), Korean
Census Questionnaire Assistance Interview	Spanish, Chinese (Mandarin, Cantonese), Korean, Vietnamese, Tagalog, Arabic, French
Web Pages with Fact Sheet and FAQs	Spanish, Chinese (Simplified), Korean, Vietnamese, Japanese, Tagalog, Arabic, Farsi, Dari, French, Burmese, Thai

# 2016 Census Test

## Self-Response: Preliminary Language Findings as of July 19, 2016

- Internet
  - English – 97.5 percent
  - Spanish – 1.3 percent
  - Chinese – 1.2 percent
  - Korean – 0.1 percent
- Phone
  - English – 82.1 percent
  - Spanish – 12.1 percent
  - Chinese – 5.8 percent
  - Korean – 0.0 percent

The collage consists of three documents from the U.S. Census Bureau:

- Top Document:** A letter dated March 21, 2016, from the U.S. Census Bureau to a resident at 123 ANY STREET, ANY TOWN US 00123-9999. It explains the purpose of the 2016 Census Test and provides instructions for participating.
- Middle Document:** A 'Start here' page with instructions for filling out the form, including counting people living in the household and providing contact information.
- Bottom Document:** A '2016 Census Test' form with a header in English and Korean, a 'Log in' section, and a 'Start here' section with instructions in both languages. It also includes a 'Log in' section with a user ID and password field.



# 2016 Census Test

## Self-Response: Non-ID Processing

United States Census Bureau | FAQ | Instructions | Burden | Select Language - Save and Logout

Home > Household > Residence

**Where will you be living on April 1, 2016** [\(help\)](#)

Please select the type of address associated with your residence.

Note: If you have a street address associated with your residence, such as one you would provide to have a package delivered to your home, then please provide it here; not your P.O. Box or Rural Route address.

☒ Street Address  
☐ Rural Route  
☐ P.O. Box

Address Number

Street Name

Apartment Number

City

State

Zip Code

[Previous](#) [Next](#)

Build: af62db5 | OMB No.: 0607-0959 | Approval Expires: 4/30/2017 | [Accessibility](#) | [Privacy](#) | [Security](#)

United States Census Bureau | FAQ | Instructions | Burden | Select Language - Save and Logout

**Address Standardization**

Here is the address you submitted, using standard abbreviations and formatting.

Please review your address for common errors, such as misspellings in the street name or city names, missing apartment numbers, or an incorrect ZIP Code.

123 MAIN ST

Is the address above correct?  
[\(help\)](#)

[Yes](#) [No](#)

Address Number

Street Name

Apartment Number

City

State

Zip Code

[Previous](#) [Next](#)

Build: af62db5 | OMB No.: 0607-0959 | Approval Expires: 4/30/2017 | [Accessibility](#) | [Privacy](#) | [Security](#)

United States Census Bureau | FAQ | Instructions | Burden | Select Language - Save and Logout

Home > Household > Web Map

Otherwise, mark the "Cannot Locate Area" checkbox at the bottom of the page, then continue to the next page.

NOTE: New roads, especially those that are part of a new development, may not appear on the map. In these cases, click and highlight the area you believe contains your address, then click continue to the next page.

Satellite Legend Start Over

☐ Cannot Locate Area Using the spatial tools found on the map.

[Previous](#) [Next](#)

# 2016 Census Test

## Self-Response: Preliminary Non-ID Processing Results

	Total Self-Response	Total Non-ID Submissions	Non-ID Percent of Self-Response
Harris County, Texas	88,506	1,993	3.8%
Los Angeles County, California	122,634	2,451	3.6%
<b>Total</b>	<b>211,140</b>	<b>7,783</b>	<b>3.7%</b>

# 2016 Census Test

## Preliminary Coverage Reinterview Results

Purpose: To test versions of questions for initial roster creation, undercount probes, and overcount probes

Planned Production Dates	April 25, 2016 – June 24, 2016
Actual Production Dates	May 2, 2016 – June 26, 2016
Contact Strategy	Centralized Outbound Telephone
Response Rate	55.4 percent
Target Response Rate	59.3 percent



# 2016 Census Test

## Reengineering Field Operations

The 2016 Census Test allowed us to operationalize our new methods and new technology across multiple locations and time zones during nonresponse followup.

Our objectives related to nonresponse follow up included:

- Determine the nonresponse followup strategy for the 2020 Census
- Refinement of the field management staffing structure
- Enhancements to the Operational Control System and COMPASS
- Refinement of the path in COMPASS to conduct proxy interviews
- Automated applications for field recruiting and administration
- Multi-unit accessibility and contact procedures

We will also focused on quality control in this Test:

- Use of paradata and GPS points collected during interview
- Reinterview functionality

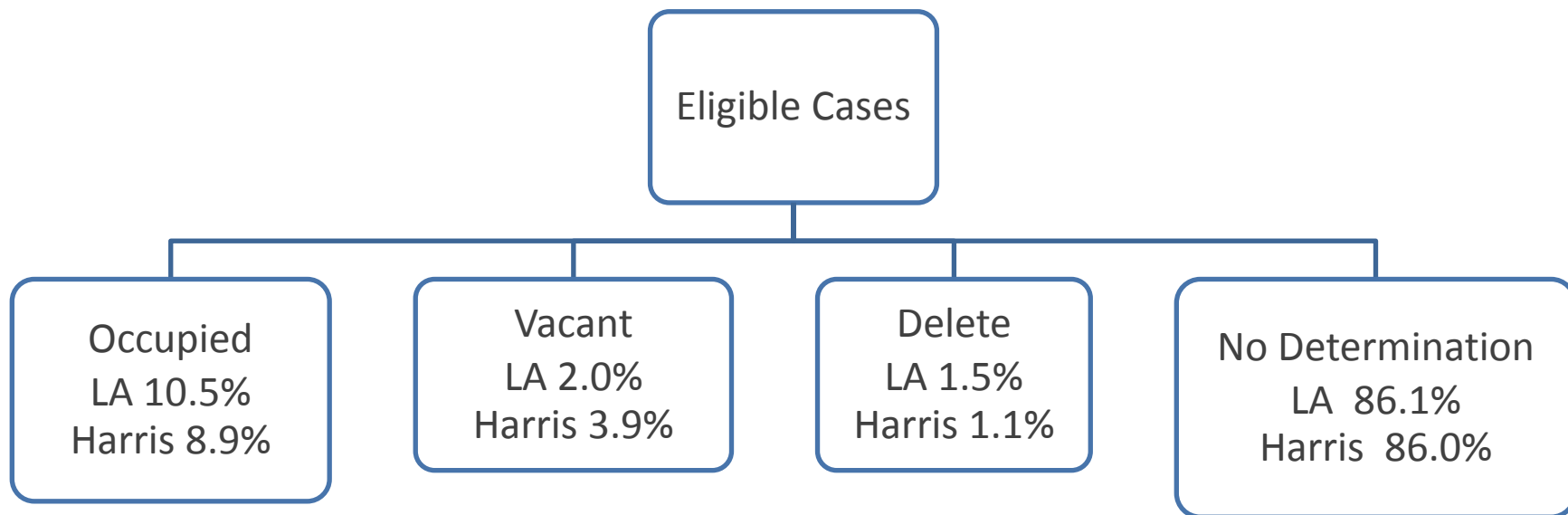
# 2016 Census Test

## Engagement with the United States Postal Service

- Qualitative information about USPS postal carrier determination of Undeliverable-As-Addressed for Census mailings
- Focus Group with Postal Carriers
  - Los Angeles County, California: April 19, 2016
  - Harris County, Texas: April 26, 2016
- Observe Post Office and Mail Processing Facilities

# 2016 Census Test

## Preliminary Administrative Records Processing Results



### Phase 2

- Identified an additional 308 cases on June 9, 2016

### Evaluation

- For administrative record occupied, vacant and delete cases, a 1-in-5 sample was sent to the field to allow comparisons of administrative record determination and census fieldwork enumeration

# 2016 Census Test

## Nonresponse Followup Results

Field Data Collection Workload	Initial NRFU Workload	Nonresponse Validation	NRFU RI	NRFU Rework	Final Field Workload
Harris County, Texas	62,824	1,993	3,496	0	68,313
Los Angeles County, California	61,314	2,451	3,986	3,914	71,665
<b>Total</b>	<b>124,138</b>	<b>4,444</b>	<b>7,482</b>	<b>3,914</b>	<b>139,978</b>

Field Workload Resolution	Final Field Workload	Self-Response after Start of NRFU	Administrative Records Removal
Harris County, Texas	68,313	7,892	5,366
Los Angeles County, California	71,665	10,212	4,732
<b>Total</b>	<b>139,978</b>	<b>18,104</b>	<b>10,098</b>

	Field Complete	Max Attempt Removals	Unresolved Cases
Harris County, Texas	37,138	16,773	1,144
Los Angeles County, California	42,869	10,289	3,563
<b>Total</b>	<b>80,007</b>	<b>27,062</b>	<b>4,707</b>

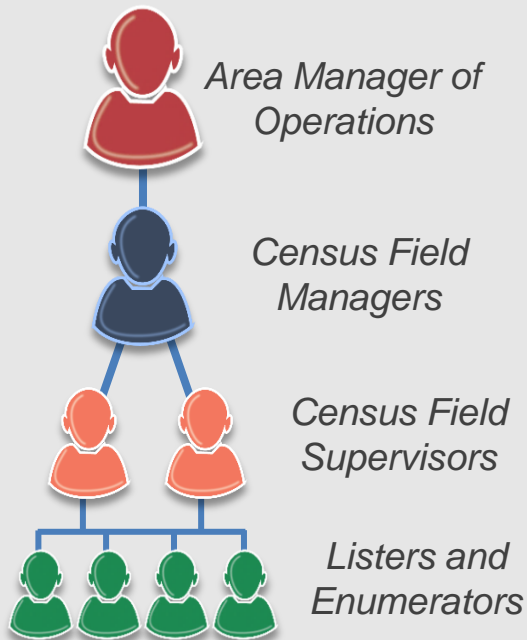
# 2016 Census Test: A Field Perspective

Albert E. Fontenot, Jr., Field Division

# 2016 Census Test

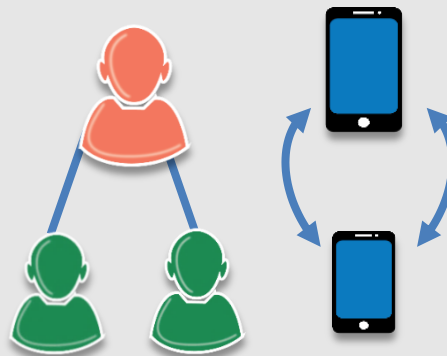
## Reengineering Field Operations

### Streamlined Office and Staffing Structure



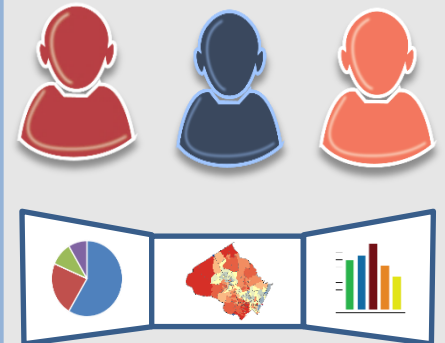
### Increased use of Technology

- Automated and optimized work assignments
- Automated recruiting, training, payroll and expense reporting
- Ability to conduct address updates and enumeration on same device
- Reduced paper and manual processing



### Increased Management and Staff Productivity

- Increased visibility into case status for improved workforce management
- Redesigned quality assurance operations
- Improved communications



# 2016 Census Test

## Field Perspective: Staffing Ratios

- System generated alert based notifications allowed for effective manage of the field staff
- Increased staff ratios worked
- Data analysis is underway to finalize 2020 Census staffing ratios

# 2016 Census Test

## Field Perspective: Training

- Change from verbatim training to blended online and classroom training was successful
- Suggested refinements:
  - Make online training modules more interactive
  - Increase depth/detail of training beyond single household path
  - Need more training on techniques to convert potential refusals into interviews
  - Develop better assessment tools
  - Enumerators should be trained by their supervisors



# 2016 Census Test

## Field Perspective: Operating Control System/Management Review

Initial number of cases coming into Management Review was overwhelming

- Maintain Linkage of Multi-unit individual units with the parent unit
- Automate more reassignment functions in Management Review

# 2016 Census Test

## Field Perspective: Operations Control System and Optimizer

- Attempts need to be variable based on characteristics of the area
- Balance emphasis on controlling and managing attempts with emphasis on completing interviews
- Routing rules need to be refined
- Non-interview cases need to stay on the device longer to allow potential interview opportunities

## Field Perspective: Closeout Procedures

- The optimizer case assignment functions used the same rules and parameters at all points in the operation
- Closeout procedures need to be developed

# 2016 Census Test

## In Summary

- Conducted a successful 2016 Census Test
  - Furthered our efforts to understand how to connect with people and encourage self-response
  - Continued our efforts to utilize and refine our approach to using administrative records and third-party data to reduce the Nonresponse Followup workload
  - Progressed along our path to leverage automation across the 2020 Census Program
  - Continued toward the definition of the 2020 Census operational design for Nonresponse Followup
- Going Forward: Priority Focus Areas
  - Operational/management reports
  - Operational Control System/Optimizer enhancements
  - Training
  - Closeout procedures
- Move to a platform solution provides an opportunity to develop solutions that meet our requirements and address previous challenges in support of our 2017 Census Test, 2017 Puerto Rico Census Tests, and the 2020 Census

# 2020 Census Operational Updates

**Marc Perry**, Population Division

**Deb Stempowski**, Decennial Census Management Division

# Residence Criteria and Situations

## Purpose

The goal of the Decennial Census is to count everyone once, only once, and in the right place.

The Residence Criteria and Situations support the Decennial Census by providing guidance on:

- Who should be counted
- Where they should be counted

## Census Act of 1790

The Decennial Census Residence Criteria and Situations are rooted in the **Census Act of 1790**, which established the concept of “usual residence” to determine where people were to be counted.

- “Usual Residence” is defined as where a person lives and sleeps most of the time.
- The Act included a provision for counting people who are temporarily absent, which allows for the count of federally affiliated personnel overseas.

Title 13 gives the Census Bureau director the authority to apply the residence criteria for the Decennial Census.

# Residence Criteria and Situations

## Reviewing the Residence Criteria and Situations for 2020

- A Federal Register (FR) notice was issued in May 2015 that gave the public the opportunity to review the 2010 Residence Rule and Situations and provide written comments
- Key stakeholders were contacted about the FR notice, such as:
  - U.S. Congressional offices and Governors' offices
  - House Oversight and Government Reform Committee
  - Congressional Black Caucus
  - National Conference of State Legislatures Listserv
- Others included National Advisory Committee, Census Scientific Advisory Committee, State Data Center Network, and other partners and stakeholders
- There were **262** comments received on the 2010 Residence Rule and Situations
  - **162** commented on where prisoners were counted, with **156** of them saying that prisoners should be counted at home or pre-incarceration address
  - **87** commented on where deployed military were counted, with all **87** arguing for including them in the resident population and treating them the same as “people temporarily away for work”
  - **13** comments were received on other topics, such as group homes for juveniles, non-correctional residential treatment centers for juveniles, and boarding school students

# Residence Criteria and Situations

## Proposed Criteria and Situations for 2020: **Deployed Military**

- In 2010, military and civilian employees of the U.S. government who were deployed overseas were counted in their home state in the U.S. for apportionment purposes only. They were not included in the resident population used for redistricting
- For 2020, we propose that military and civilian employees of the U.S. government who are deployed overseas (while stationed/assigned in the U.S.) be counted at their usual residence and included in the U.S. resident population (used for redistricting as well as apportionment)
- This change is based upon the review of the concept of usual residence and its application to the deployed military population

# Residence Criteria and Situations

## Proposed Criteria and Situations for 2020: Prisoners

- Historically, people in correctional facilities on Census Day have been counted at the facility
- For 2020, we propose to continue counting prisoners at the facility. This approach is consistent with the concept of usual residence as applied to this population
- The Census Bureau plans to provide two tools to assist states if they want to make their own decisions about whether to include prisoners when they redraw district boundaries:
  - **2020 Census Redistricting Data (PL 94-171) Summary File** will include group quarters data, so data users can exclude certain populations (e.g., prisoners) when redrawing boundaries
  - **Special product (upon request) to assist states with reallocating their own prisoner population counts.** Any state that requests this product will be required to submit a data file (indicating where each prisoner was incarcerated on Census Day, as well as their pre-incarceration address) in a specified format
  - The Census Bureau will not use the information in this product to make any changes to the official decennial census counts



# Residence Criteria and Situations

## Current Activities and Next Steps

- Engage stakeholders and the public on the opportunity to provide written comments during the comment period for the June 30, 2016 FR notice containing proposed 2020 Census Residence Criteria and Residence Situations  
<https://www.federalregister.gov/articles/2016/06/30/2016-15372/proposed-2020-census-residence-criteria-and-residence-situations>
- The public has the opportunity to comment on any of the proposed 2020 Census Residence Criteria and Residence Situations
- The original 30-day comment period ends on August 1, 2016, but we are moving to expand the comment period to 60 days, ending on **September 1, 2016**
- Census Bureau will review, analyze and consider all written comments received from the June 30, 2016 FR notice
- Census Bureau will draft and publish the FR notice containing final 2020 Census Residence Criteria and Situations in late 2016

# Address Canvassing: Operational Update and Test and 2017 Census Tests

**Deb Stempowski, Decennial Census Management Division**

# 2020 Census Operational Updates

## Address Canvassing Operation

### Purpose:

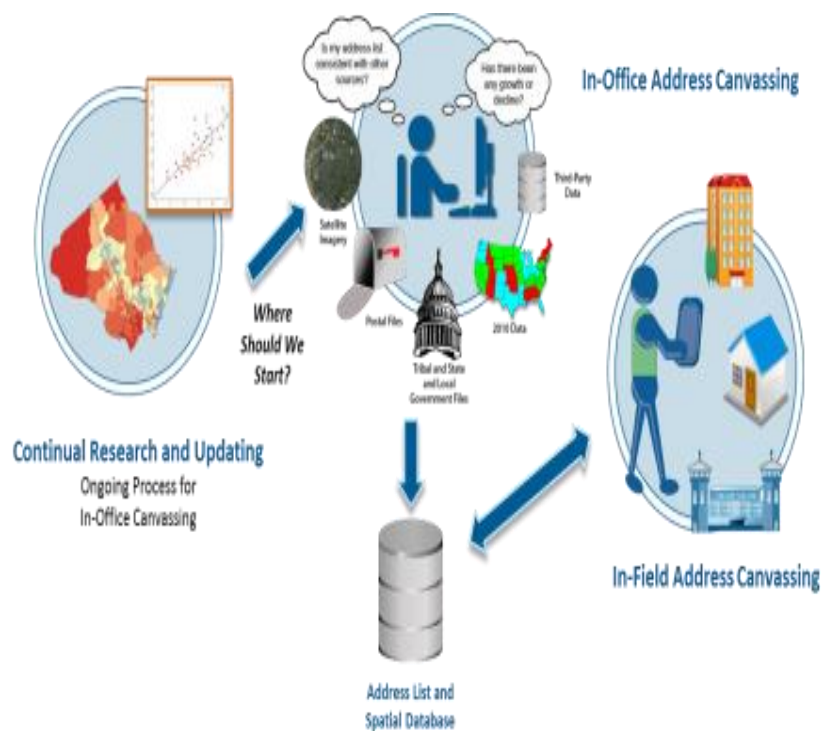
Improve and refine the Census Bureau's address list in advance of the 2020 Census Enumeration.

### New Innovative Methodology:

- 100 percent In-Office Address Canvassing
- Up to 25 percent of Addresses Updated via In-Field Address Canvassing
- Monitor progress via the annual MAF Coverage Study

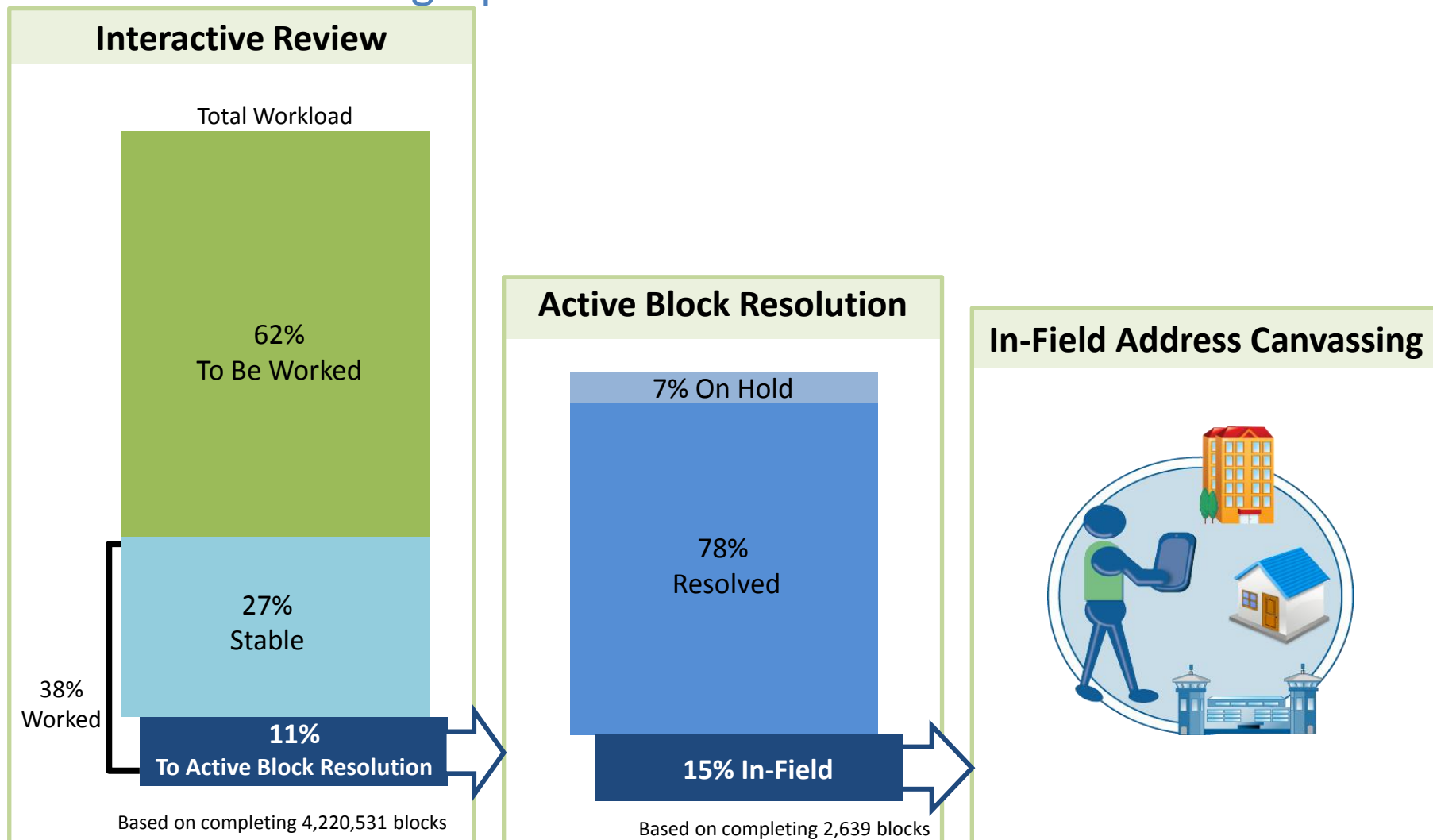
### Status of In-Office Address Canvassing:

- Began Interactive Review process at the National Processing Center in September 2015
- Began Active Block Resolution at Census Headquarters in April 2016
- Began Active Block Resolution at the National Processing Center in July 2016



# 2020 Census Operational Updates

## Address Canvassing Operation



# 2020 Census Operational Updates

## Address Canvassing Operation





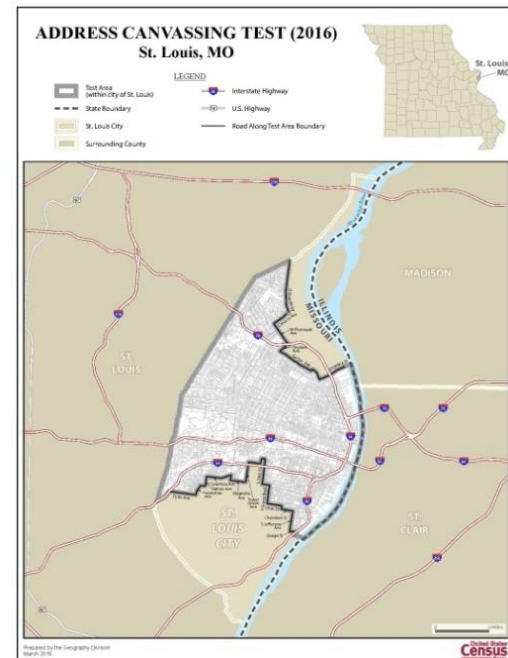
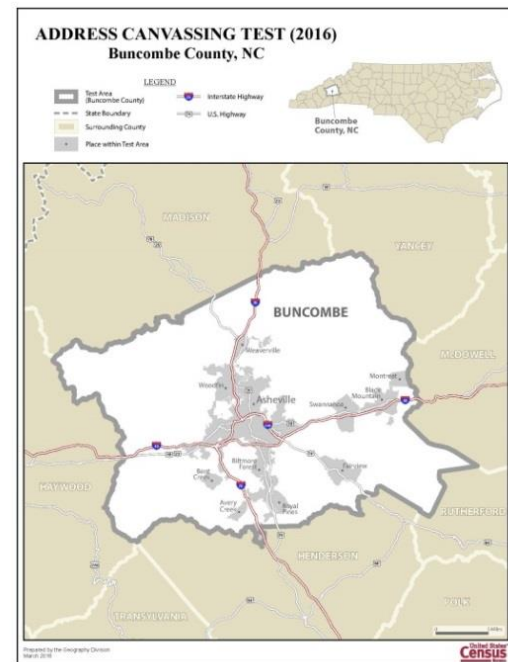
# Address Canvassing Test

## Overview

- Begins in the Fall 2016
- Two contiguous sites, approximately 12,600 blocks in total, Buncombe County, NC and part of the city of St. Louis, MO
  - One site is a mix of urban, suburban and rural territories
  - One site is a principal city of a metropolitan statistical area

## Purpose

- Measure the effectiveness of In-Office Address Canvassing through In-Field Address Canvassing
- Measure the effectiveness of In-Field Address Canvassing
- Understand the implications of moving from Assignment Areas to Basic Collection Units (BCU)
- Conduct an In-Field Relisting to collect data to refine future Quality Control operations



# Address Canvassing Test

## Key Activities

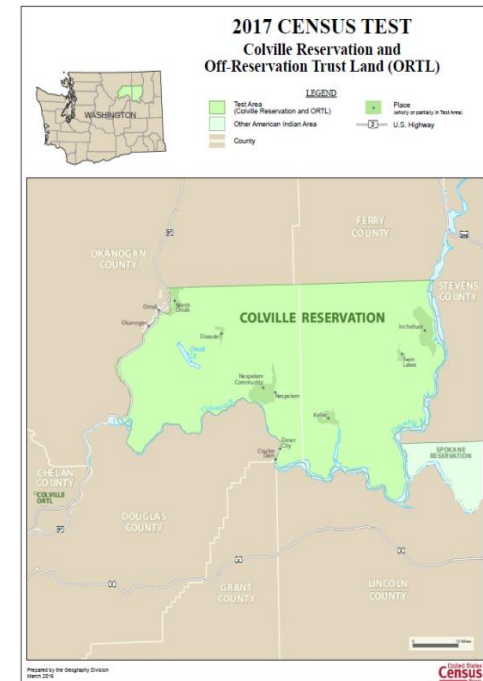
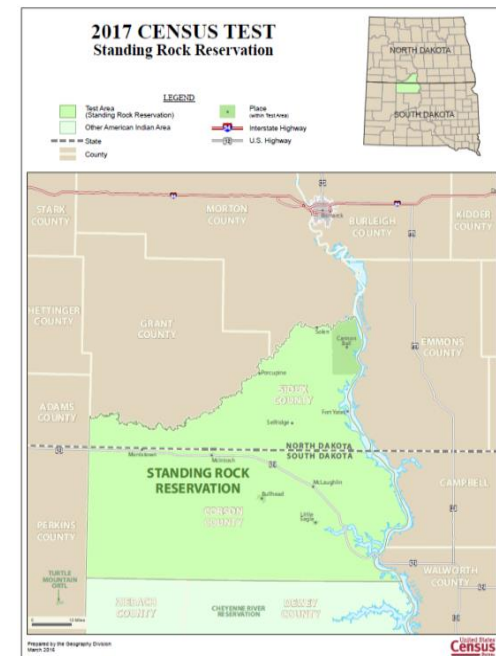
Activity	Date	
Begin Recruiting Field Staff	April 6, 2016	✓
Conduct In-Office Address Canvassing	August 12 – October 31, 2016	
Begin Field Management Training	August 29, 2016	
Begin Field Supervisor Training	September 12, 2016	
Begin Field Representative Training	September 26, 2016	
Conduct In-Field Data Collection	October 3 – November 15, 2016	
Conduct In-Field Relisting Data Collection	November 16 – December 16, 2016	
Release Address Canvassing Test Analysis Report (through clearance)	April 29, 2017	

# 2017 Census Test Overview

- April 1, 2017 Census Day
- A nation-wide self-response test of 80,000 housing units
- Two site locations on tribal land:
  - Colville Reservation and Off-Reservation Trust Lands in Washington State, and
  - Standing Rock Indian Reservation in North and South Dakota

## Purpose

- Test the integration of operations and systems for Self-Response
- Test the integration of operations and systems for Update Enumerate
- Test the feasibility of collecting tribal enrollment information





# 2017 Census Test

## Key Activities

Activity	Date
Begin Hiring Partnership Staff	August 22, 2016
Open Regional Census Centers (RCCs)	September 1, 2016
Begin Recruiting	September 1, 2016
Receive OMB (Paperwork Reduction Act) Approval	December 30, 2016
Begin Census Questionnaire Assistance (CQA)	March 20, 2017
Begin Self-Response, Including Non-ID Processing	March 20, 2017
Census Day	April 1, 2017
Conduct Update Enumerate	April 17-May 26, 2017
Conduct Update Enumerate Followup	May 15-July 17, 2017

# 2017 Puerto Rico Census Test Overview

- April 1, 2017 Census Day
- A site test in Puerto Rico:
  - Carolina Municipio
  - Loiza Municipio
  - Trujillo Alto Municipio

## Purpose

- Test the Address Canvassing operation in Puerto Rico
- Integrate Self-Response, Update Enumerate (UE), and Nonresponse Followup operations
- Test Spanish versions of the software/systems needed to support Census activities



# 2017 Puerto Rico Census Test

## Key Activities

Activity	Date	
Begin Partnership Staff Hiring	July 19, 2016	✓
Open Regional Census Center	September 1, 2016	
Conduct In-Office Address Canvassing	September 1 – October 15, 2016	
Begin Recruiting	September 1, 2016	
Receive OMB (Paperwork Reduction Act) Approval	December 15, 2016	
Open Puerto Rico Area Census Office	December 12, 2016	
Begin In-Field Address Canvassing	February 21, 2017	
Begin Census Questionnaire Assistance	March 20, 2017	
Begin Self-Response, Including Non-ID Processing	March 20, 2017	
Census Day	April 1, 2017	
Begin Update Enumerate	April 17, 2017	
Begin Nonresponse Followup	May 12, 2017	

# 2020 Systems Integration

**Atri Kalluri**, Decennial Information Technology Division

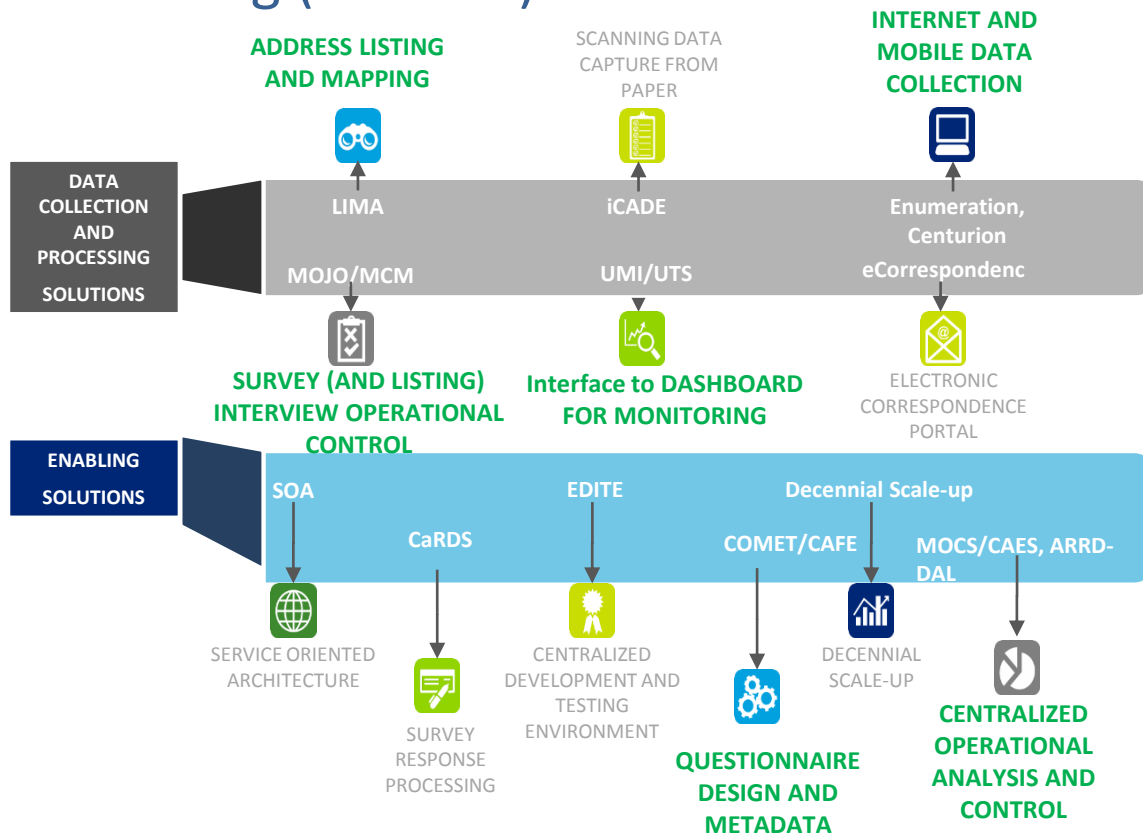
**Patty McGuire**, Information Technology Directorate

# 2020 Systems Integration

- Build/Buy Decision
- Platform Implementation
- 2020 Census Solution Architecture
- Systems Readiness for Upcoming Tests

# 2020 Census Systems Integration

## Census Enterprise Data Collection and Processing (CEDCaP)



Capabilities shown in **green** were part of the COTS Capability Assessment and Analysis (CCAA) and will be provided by the Enterprise Censuses and Surveys Enabling Platform (ECaSE)

CEDCaP Data Collection & Processing Capabilities and Solutions Delivered:	
CEDCaP Capability	CEDCaP Solution
1) Centralized Development and Testing Environment	Enterprise Development, Integration, & Test Environment (EDITE)
2) Service Oriented Architecture (i.e., common infrastructure and efficient system interfaces to allow IT applications to communicate without the need for costly system re-writes)	Application Programming Interface (API) Infrastructure (API-I)
3) Centralized Operational Analysis and Control and Adaptive Survey Design capability, including statistical modeling and administrative records	ECaSE Administrative Records and Response Data–Data Access Layer (ARRD-DAL) Concurrent Analysis and Estimation System (CAES)
4) Survey (and Listing) Interview Operational Control	ECaSE
5) Address Listing and Mapping	ECaSE
6) Dashboard for Monitoring Survey Cost, Progress, and Quality and Enterprise Paradata Repository	ECaSE-Interface to Unified Tracking System (UTS)
7) Questionnaire Design and Metadata	ECaSE
8) Internet and Mobile Data Collection	ECaSE
9) Electronic Correspondence Portal	eCorrespondence
10) Scanning Data Capture from Paper	Integrated Computer Assisted Data Entry (iCADE)
11) Survey Response Processing	Control and Response Data System (CaRDS)

# 2020 Census Systems Integration

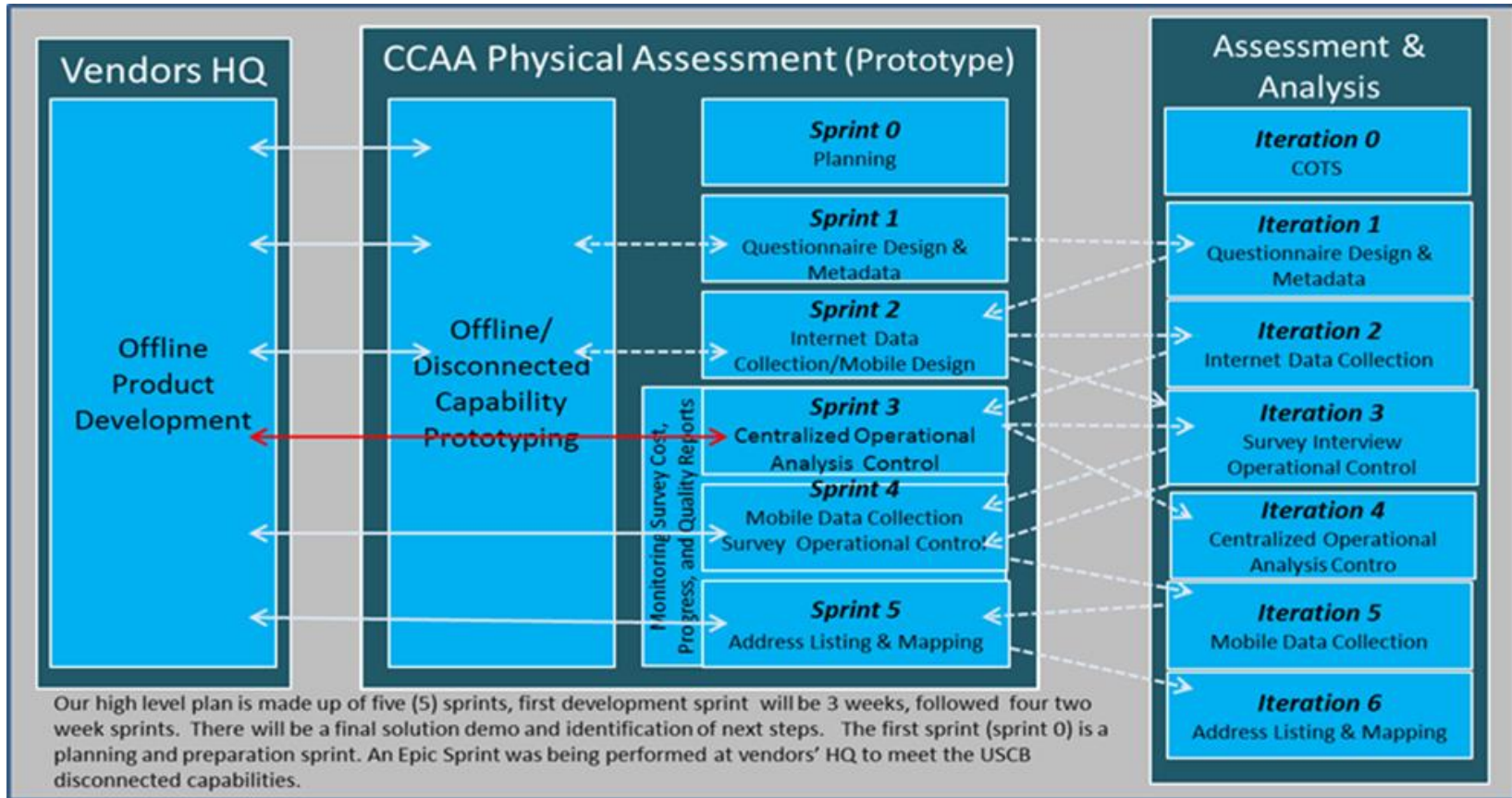
## CEDCaP COTS Capability Assessment and Analysis Approach (CCAA)

Process Milestones	
Identify core and key business capabilities	✓
Conduct extensive market research on which capabilities may be commercially available	✓
Prepare a Request for Information (RFI) for industry response	✓
Conduct vendor demonstrations	✓
Prepare a Request for Quotation (RFQ) based on requirements	✓
Complete vendor demonstrations and select qualified vendor solutions	✓
Leverage Carnegie Mellon University's Software Engineering Institute to assist with COTS Capability Assessment and Analysis (CCAA)	✓
Develop the CCAA process	✓
Complete the CCAA process (including three subcomponents)	✓
Complete analysis, including documentation and findings	✓
Prepare overall recommendations and next steps	✓

# 2020 Census Systems Integration

## CEDCaP CCAA Proof of Concept Phase

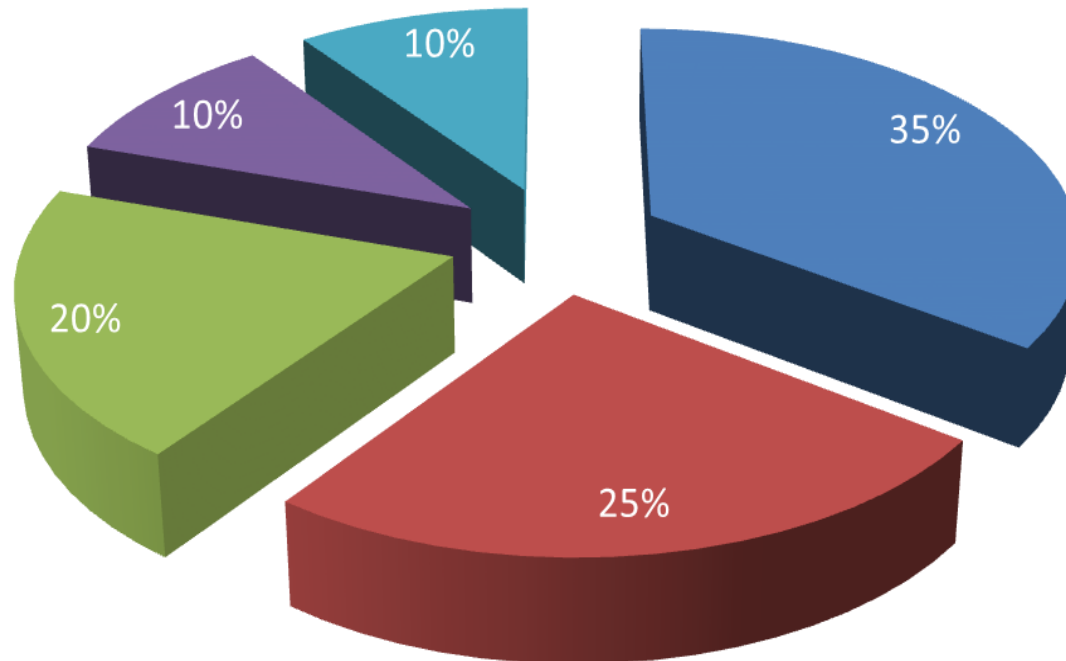
90-day period, made up of 6 sprints





# 2020 Census Systems Integration

## CEDCaP CCAA Criteria and Weights for Build/Buy Decision



### ■ Business Functional Need

35% - The degree to which the alternative satisfies a set of defined business requirement and related quality attributes.

### ■ System Design

25% - The degree in which the alternative satisfies an identified set of important architectural quality attributes (e.g. illities).

### ■ Schedule

20% - The ability of the alternative to be confidently deployed to meet the required timelines.

### ■ Cost

10% - The relative comparison of estimated five-year total cost of ownership for a given alternative.

### ■ Vendor/Dev Team Viability

10% - Indicator of vendor/development team and tool's stability and ability to meet the Bureau's long term needs.

# 2020 Census Systems Integration

## CEDCaP CCAA Decision

- Complete review of the process and findings is available:  
<http://www2.census.gov/about/policies/cedcap/cedcap-report-final.pdf>
- The hybrid approach combines the selected COTS platform with select in-house custom solutions
- This approach will address the short-term goal of successfully deploying the 2017 Census Test, in preparation for the 2018 End-to-End Census Test and ultimately the 2020 Census

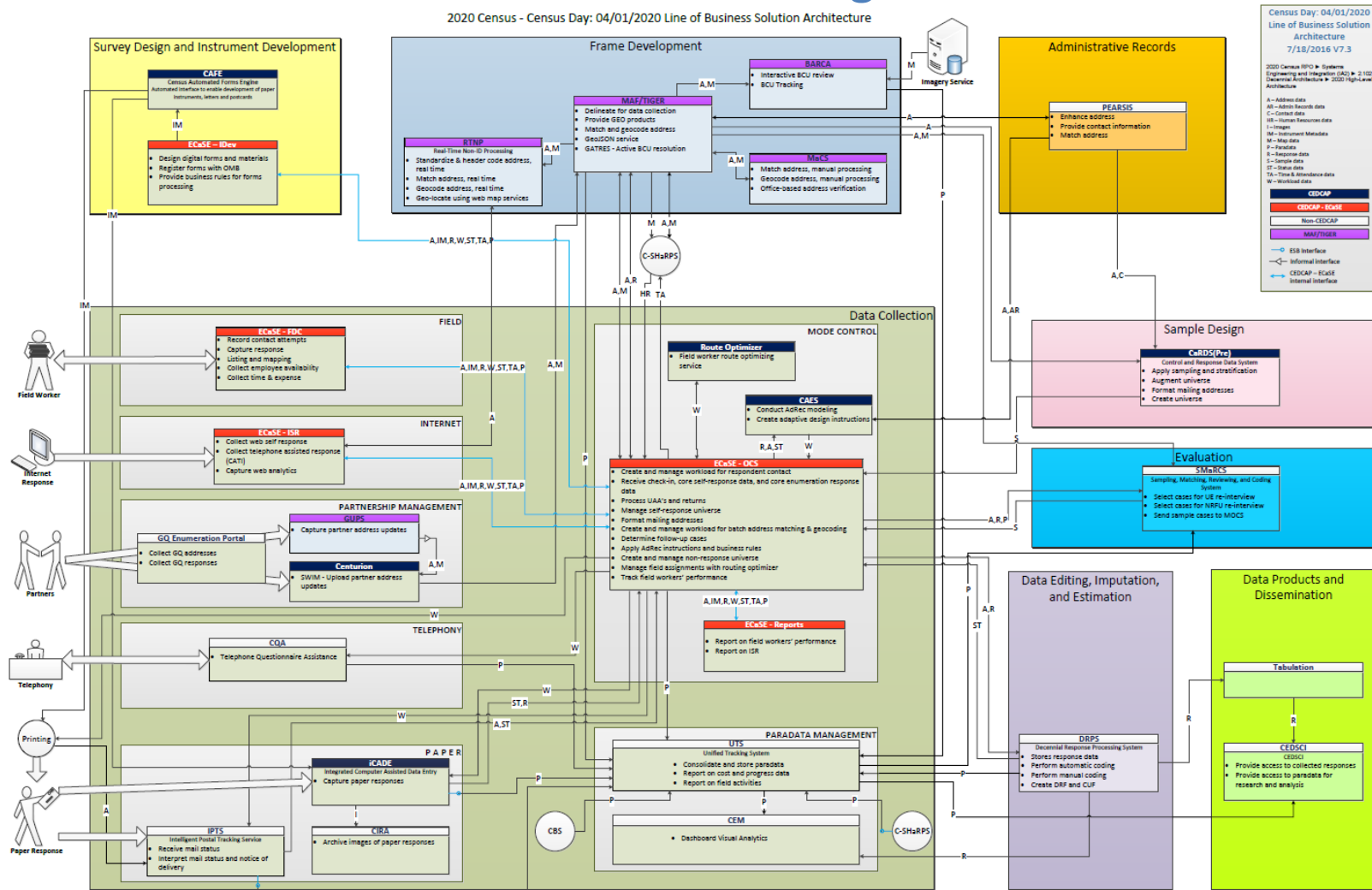
# 2020 Systems Integration

## Platform Implementation

- Enterprise **C**ensuses and **S**urveys **E**nabling (ECaSE) Platform
- A new project in Decennial IT Division under the CEDCaP Program
- Five key areas of application development on the ECaSE platform:
  - Content Metadata
  - Control Systems
  - Internet Self Response
  - Enumeration
  - Listing and Mapping
- Agile/Scrum Methodology

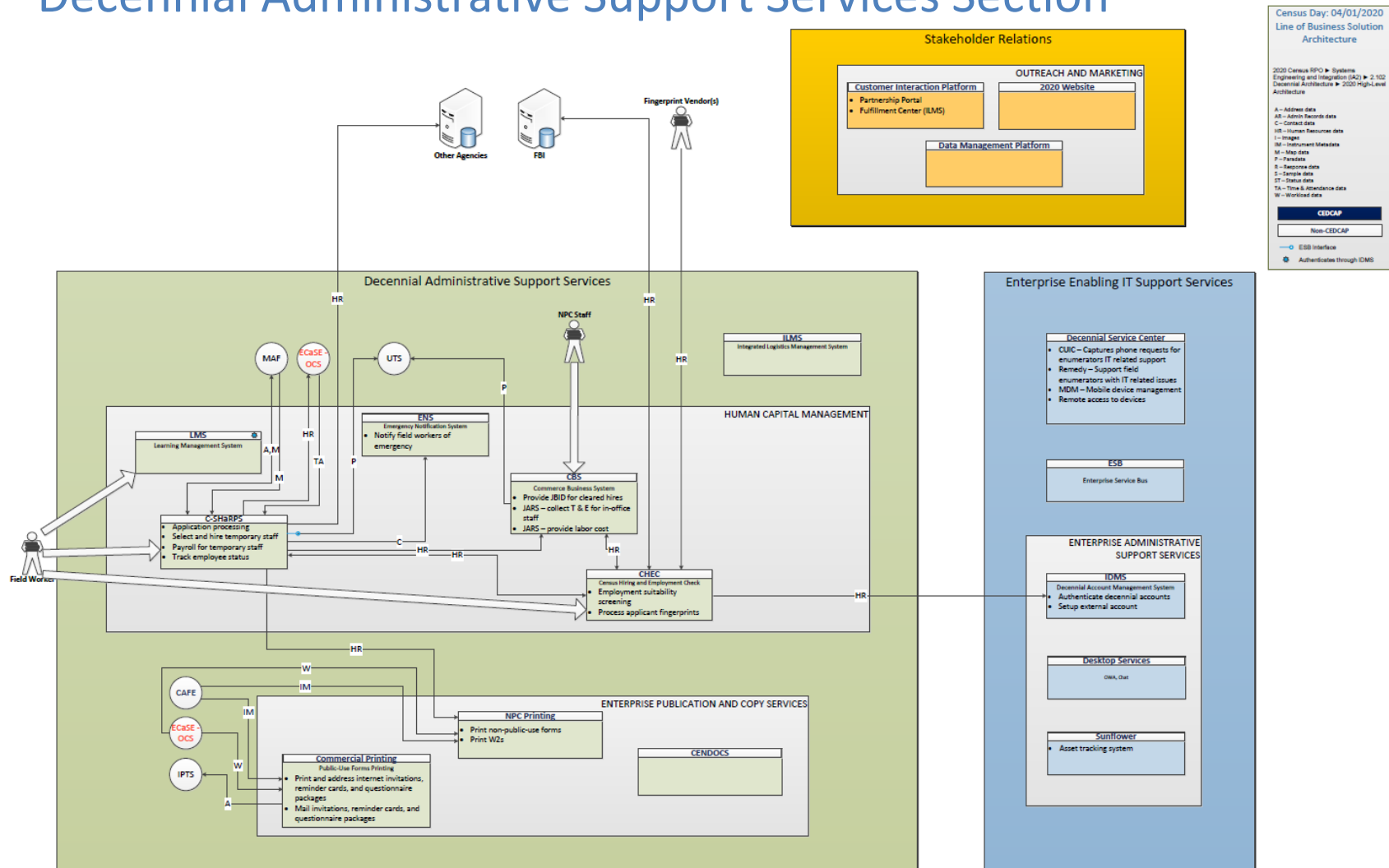
# 2020 Systems Integration

## 2020 Census Solution Architecture Diagram



# 2020 Systems Integration

## Decennial Administrative Support Services Section



# 2020 Systems Integration

## Survey Design and Instrument Development

Census Day: 04/01/2020

Line of Business Solution

Architecture

7/18/2016 V7.3

2020 Census RPO ► Systems  
Engineering and Integration (IA2) ► 2.102  
Decennial Architecture ► 2020 High-Level  
Architecture

A – Address data  
AR – Admin Records data  
C – Contact data  
HR – Human Resources data  
I – Images  
IM – Instrument Metadata  
M – Map data  
P – Paradata  
R – Response data  
S – Sample data  
ST – Status data  
TA – Time & Attendance data  
W – Workload data

**CEDCAP**

**CEDCAP - ECaSE**

**Non-CEDCAP**

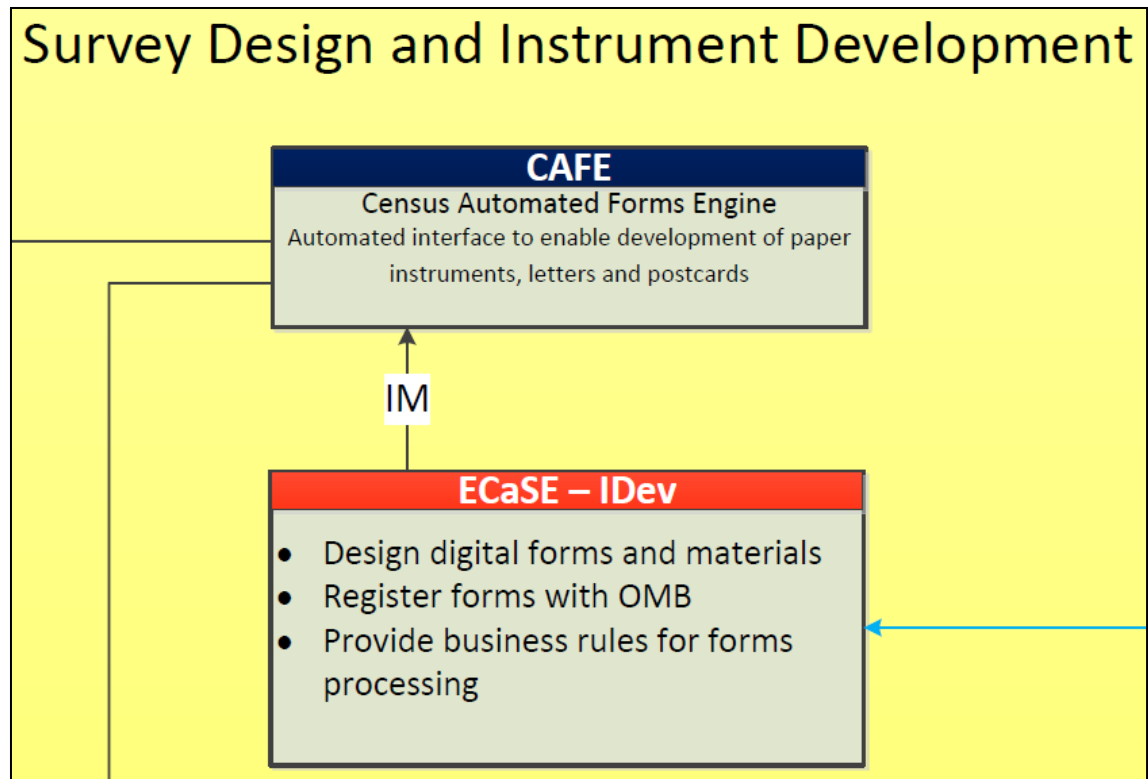
**MAF/TIGER**

—○— ESB Interface

—△— Informal interface

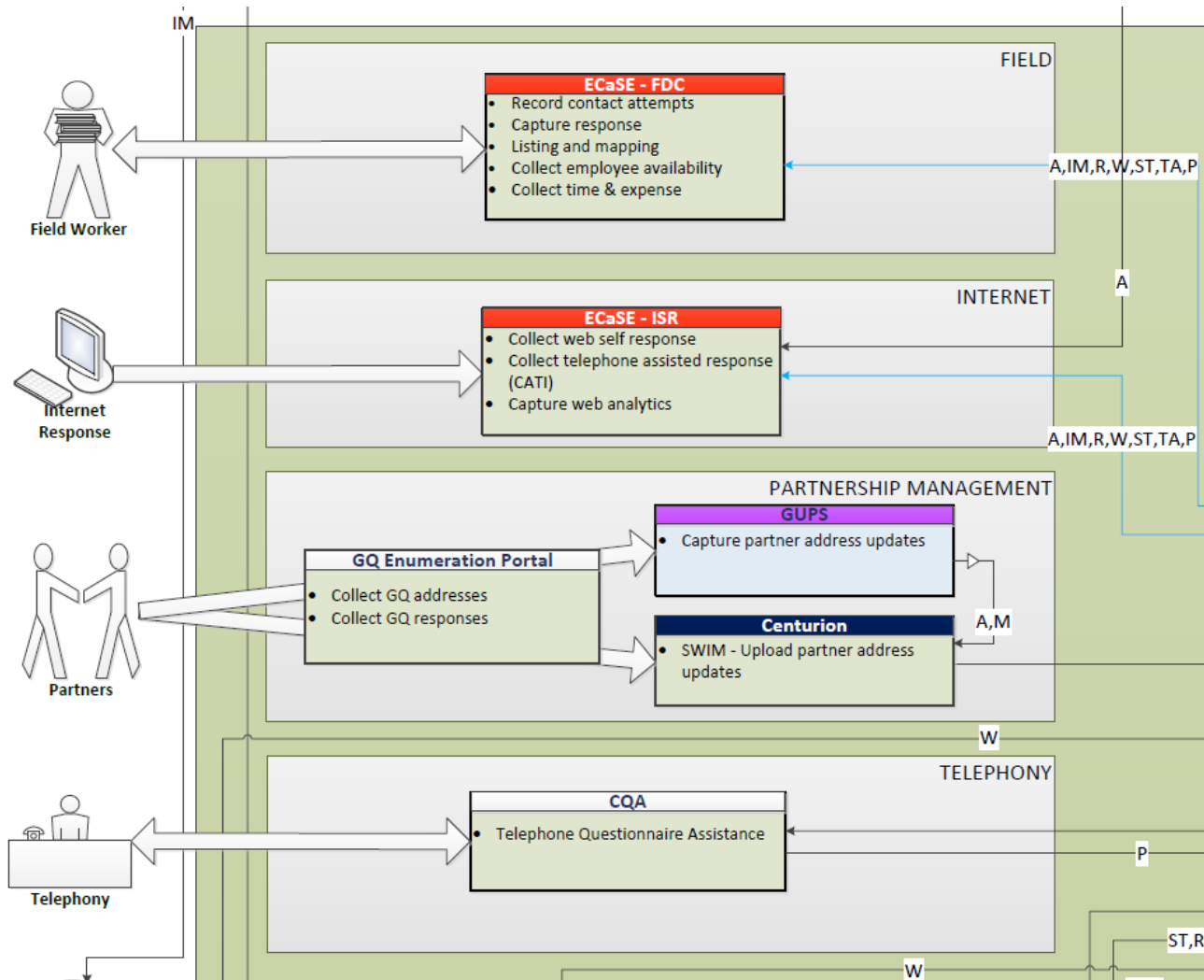
↔ CEDCAP – ECaSE  
internal interface

## Survey Design and Instrument Development



# 2020 Systems Integration

## Field and Internet Components



# 2020 Systems Integration

## Address Canvassing and Self-Response Videos

ADCAN - BLOCK 2006 (A-503)

Block Name	Unworked	Worked
Block 2006	2	0

Block GEOID 240338020012006	Block Status Assigned
Total Units 2	Distance (m) 40,467.396m

Warning: You are too far from the Block

Operation Name: Survey ID  
AdCan 3333

Tract: Tract GEOID  
802001 24033802001

County: Prince George's (033) State: MD (24)

OPEN BLOCK MAP

CANCEL SAVE NEXT >>


Address Canvassing

United States Census Bureau

ACCESSIBILITY PRIVACY SECURITY

### Welcome to the 2016 Census.

YOU WILL NEED THE MATERIALS WE MAILED TO YOU IN ORDER TO START. ALL THE INFORMATION THAT YOU PROVIDE WILL REMAIN CONFIDENTIAL.







Example User ID

Please enter the 14-digit User ID found below the barcode on the materials we mailed to you.

User ID:  LOGIN

If you do not have a User ID, [click here](#).

The U.S. Census Bureau estimates that, for the average household, this survey will take about 10 minutes to complete, including the time for reviewing the instructions and answers. Send comments regarding this burden estimate or any other aspect of this burden to: Paperwork Reduction Project 0607-####, U.S. Census Bureau, DCMD-3H174, 4600 Silver Hill Road, Washington, DC 20233. You may e-mail comments to 2020.census.paperwork@census.gov, use "Paperwork Project 0607-####" as the subject. You are not required to respond to this collection of information if it does not display a valid approval number from the Office of Management and Budget (OMB). The eight-digit OMB number is 0607-####.

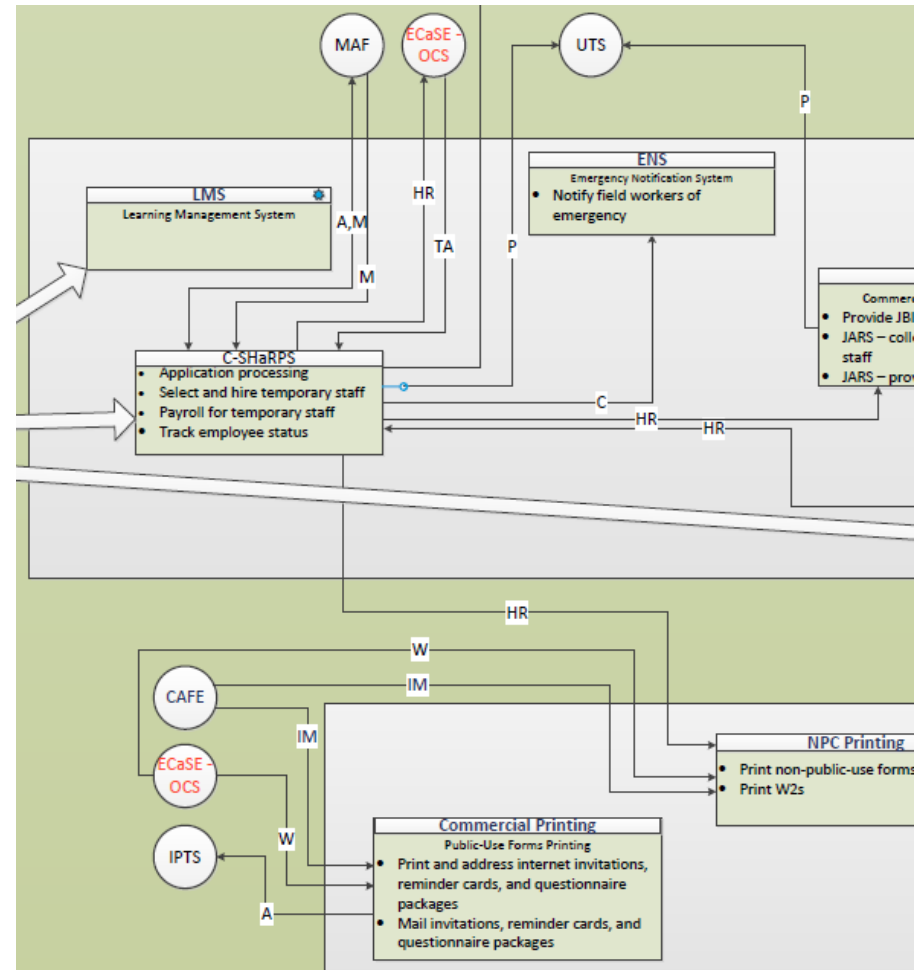
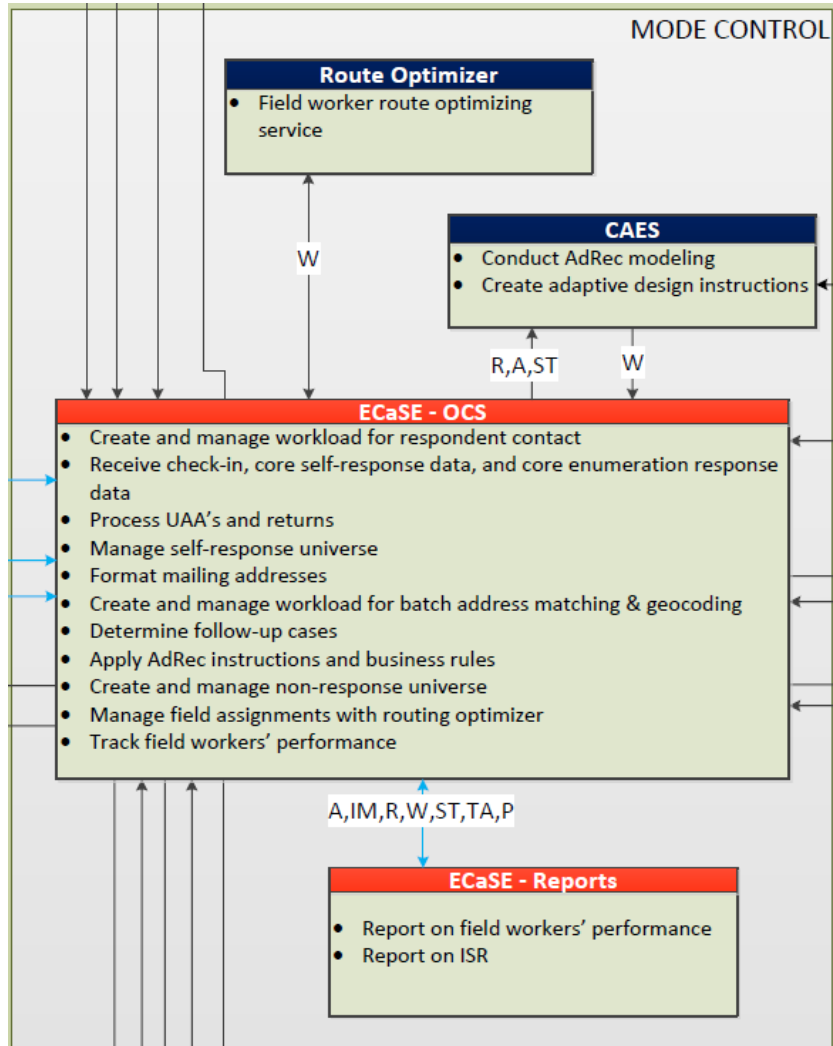





Internet Self-Response



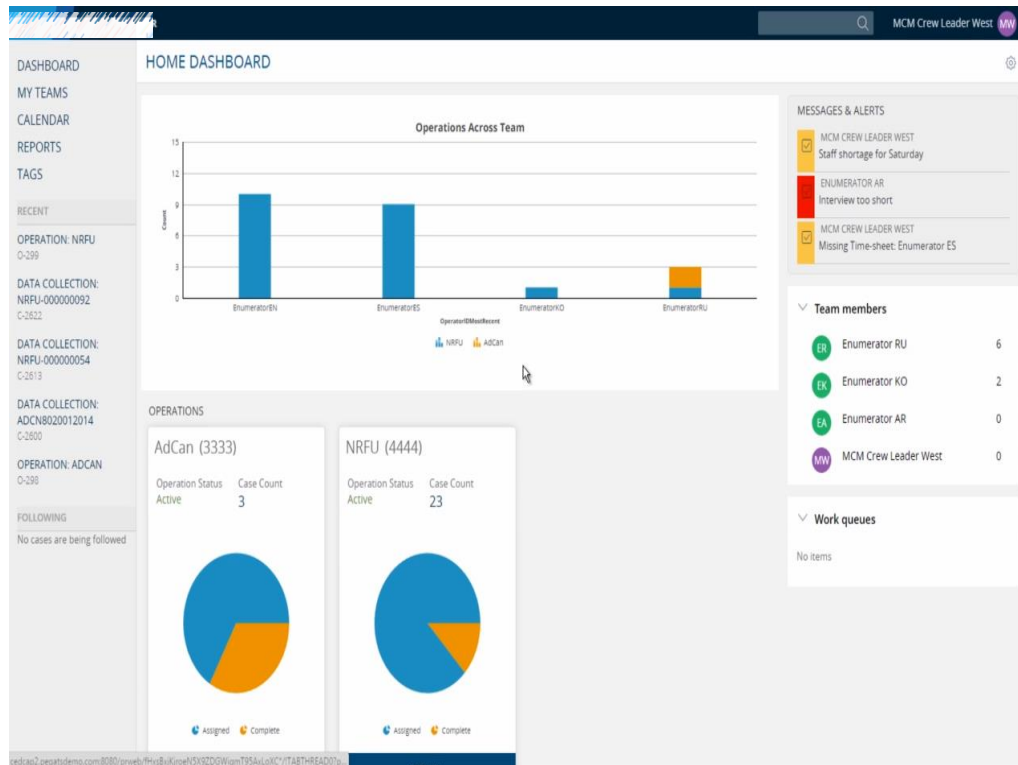
# 2020 Systems Integration

## Operational Control



# 2020 Systems Integration

## Operational Control System and Enumeration Videos



Operational Control System

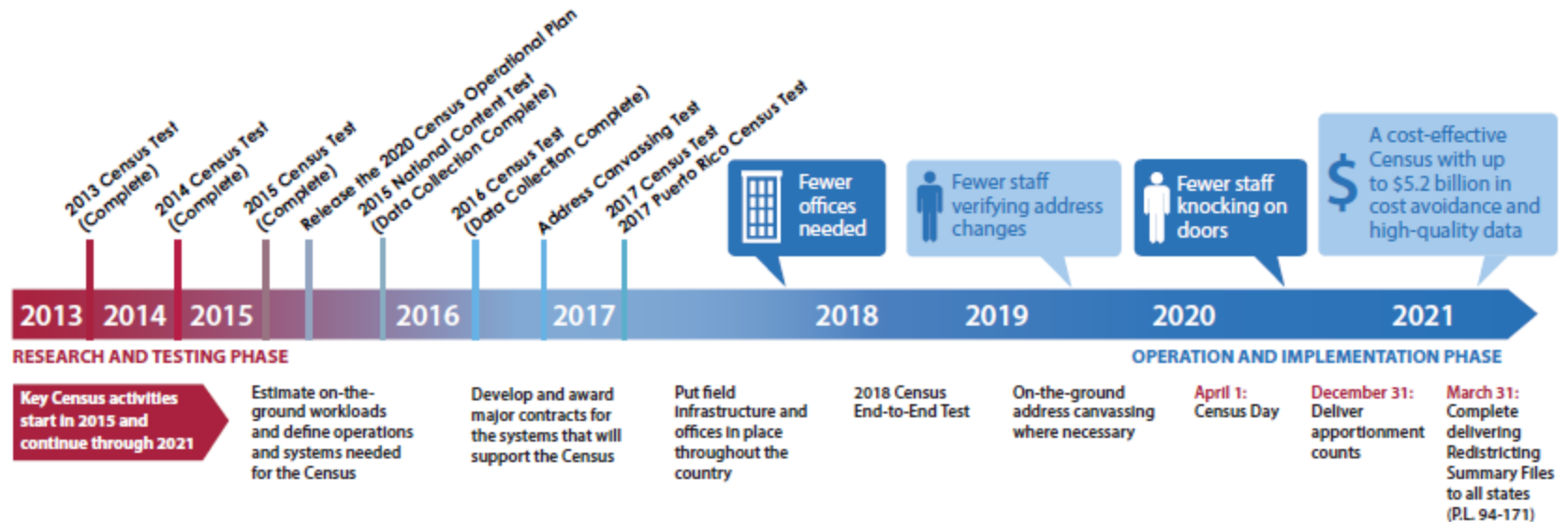


Enumeration

# 2020 Systems Integration

## Systems Readiness for Upcoming Tests

### 2020 Census Lifecycle



# Wrap-Up

**Shirin Ahmed**

Assistant Director, Decennial Census Programs

Thank You

Email us at: [2020.census.pmr@census.gov](mailto:2020.census.pmr@census.gov)